UNIV. OF ARIZONA
NA2500 .S8 mn
Statham, Henry Heat/Modern architecture;
3 9001 03864 6884

MODERN ARCHITECTURE

Digitized by the Internet Archive
in 2024

https://archive.org/details/modernarchitectu0000hhea

MODERN ARCHITECTURE

NA
2500
S8

A BOOK FOR ARCHITECTS AND THE PUBLIC

BY

H. HEATHCOTE STATHAM

FELLOW OF THE INSTITUTE OF BRITISH ARCHITECTS,
EDITOR OF "THE BUILDER,"
AUTHOR OF "ARCHITECTURE FOR GENERAL READERS," "FORM AND DESIGN IN MUSIC," "CHANGES IN LONDON BUILDING LAW," ETC.

WITH NUMEROUS ILLUSTRATIONS OF CONTEMPORARY BUILDINGS

CHARLES SCRIBNER'S SONS
NEW YORK
1898

LIBRARY
720
S79
UNIVERSITY OF ARIZONA

INDEX TO ILLUSTRATIONS.

FIG.			PAGE
	The Tower Bridge remodelled	*Frontispiece*	
1.	Plan of a Renaissance house	(Gotch's "Renaissance in England")	3
2.	Decorative arcades in Norman work ...	... ...	16
3.	Reform Club	(Photograph)	25
4.	Thatched House Club	,, ...	25
5.	Pastellists' pavilion, Paris Exhibition ...	,, ...	32
6.	Sections of three-aisled and "passage-aisle" church	... ...	48
7.	Gabled treatment of passage-aisle	... ...	49
8.	Plans of St. Stephen's, Walbrook, and St. Mary Woolnoth	(Birch's "Churches of London")	50
9.	Catholic church at Chelsea, final design ...	(*The Builder*)	57
10.	The same church as originally designed ...	,, ...	58
11.	Mr. Brooks's plan for Liverpool Cathedral ...	,, ...	64
12.	Mr. Emerson's design for Liverpool Cathedral	,, ...	65
13.	Mr. Hay's design for Liverpool Cathedral ...	,, ...	67
14.	New cathedral, Berlin	,, ...	68
15.	Detail of new cathedral, Berlin	,, ...	69
16.	Section of dome, new cathedral, Berlin ...	... ...	69
17.	Plan of new cathedral, Berlin	(*The Builder*)	70
18.	Basilica at Tours	... ...	72
19.	Church at Auteuil	(*The Builder*)	73
20.	Marseilles Cathedral	(Photograph)	74
21.	Church of La Trinité, Paris	,, ...	75
22.	Church of St. Augustin, Paris	,, ...	76
23.	Sedding's design for St. Dyfrig's, Cardiff ...	(*The Builder*)	77
24.	Church of the Holy Redeemer, Clerkenwell ...	,, ...	79
25.	Church, Stanstead-Montfitchet	,, ...	80
26.	Tower, Rossett Church	,, ...	81
27.	Slinden Church	,, ...	85
28.	St. Andrew's, Willesden, view and plan ...	,, ...	86
29.	St. George's, Worcester	,, ...	87

4500.

FIG.			PAGE
30.	Church of the Good Shepherd, Hampstead, interior	(*The Builder*)	89
31.	St. Clare's Church, Liverpool, interior	,,	90
32.	Built rood screen	,,	92
33.	Garrison church, Stuttgart	,,	93
34.	Ring-Kirche, Wiesbaden	(Photograph)	94
35.	Plan of Ring-Kirche, Wiesbaden	(*The Builder*)	94
36.	Hungarian Houses of Parliament, view and plan	,,	103
37.	Japanese Houses of Parliament, view and plan	,,	104
38.	Design for State House, Minnesota, view and plan		105
39.	Houses of Parliament, Berlin, view and plan	(*The Builder*)	107
40.	Carved panel, Berlin Houses of Parliament	(Photograph)	109
41.	Entrance Hall, Berlin Houses of Parliament	(*The Builder*)	110
42.	Staircase, Vienna Town Hall	,,	111
43.	Plan of Hôtel de Ville, Paris		115
44.	Salle des Cariatides, Hôtel de Ville, Paris		116
45.	Municipal buildings, Hamburg	(*The Builder*)	117
46.	Municipal buildings, Sheffield	,,	118
47.	Plan of municipal buildings, Sheffield	,,	119
48.	Central feature of municipal buildings, Sheffield	,,	120
49.	Municipal buildings, Bath	,,	121
50.	Messrs. Leeming's design for Edinburgh Municipal Buildings	,,	122
51.	Plan of do. do.	,,	123
52.	Author's design for Edinburgh Municipal Buildings	,,	124
53.	Another design for Edinburgh Municipal Buildings	,,	125
54.	Ground plan, Oxford Town Hall		126
55.	First floor plan, Oxford Town Hall		127
56.	View of Oxford Town Hall	(*The Builder*)	128
57.	Mairie of Xth Arrondissement, Paris	(Photograph)	129
58.	Plan of Mairie of Xth Arrondissement		130
59.	Three French Mairie designs		131
60.	Elevation of Battersea Town Hall	(*The Builder*)	132
61.	Elevation of Chelsea Vestry Hall	,,	132
62.	Competition Design for Oxford Town Hall	,,	133
63.	Plan of Birmingham Law Courts	,,	134
64.	Imperial Law Courts, Leipsic	(*American Architect*)	135
65.	Interior, Imperial Law Courts, Leipsic	,,	136
66.	Brussels Law Courts	(Photograph)	137
67.	Plan of Imperial Institute	(*The Builder*)	142

FIG.			PAGE
68.	Illogical planning		143
69.	Hall, Imperial Institute	(*The Builder*)	144
70.	Centre of Messrs. Webb and Bell's design for Imperial Institute	,,	145
71.	Police head-quarters, Vienna	(Photograph)	149
72.	Design for a New York Police Station		150
73.	Plan and elevation of a French Lycée		152
74.	The Northampton Institute	(*The Builder*)	153
75.	Plan of boarding-house, New Christ's Hospital	,,	155
76.	Faculté de Médicine, Paris	,,	157
77.	Alumni Hall, Dartmouth College, U.S.A.		158
78.	Competition design for a public library		161
79.	The Musée Galliera, Paris	(*The Builder*)	162
80.	Virginia Library, Chicago	(*American Architect*)	162
81.	New Opera Comique, Paris	(*The Builder*)	163
82.	Plan of auditorium, proposed St. Petersburg Opera House	,,	165
83.	Elevation of Lessing Theatre, Berlin	,,	166
84.	Plan of Lessing Theatre, Berlin	,,	167
85.	Interior of Bayreuth Opera House	,,	168
86.	A pretentious house		186
87.	Seaton Delaval, plan and view	(*The Builder*)	188
88.	A "symmetrical" mansion plan	,,	191
89.	Jardine Hall, original state	,,	192
90.	Jardine Hall, as remodelled	,,	193
91.	Sketch of mansion by the author		197
92.	Plan of Wickham Hall	(*The Builder*)	198
93.	"Hurstbourne," Hants	,,	199
94.	"Cragside"		200
95.	Turrets of the *nouveau riche*		201
96.	House near Dresden	(*Blätter für Architektur*)	202
97.	Modern-antique French château	(*Recueil d'Architecture Civile*)	203
98.	A piece of bad house-planning		204
99.	An American mansion	(Photograph)	205
100.	The "picturesque" type: Endalls Manor	(*The Builder*)	206
101.	"Bullers Wood"	,,	207
102.	Tutor's house, Oxford	,,	209
103.	Kirklevington Grange	,,	210
104.	Scotch house in local style	,,	211
105.	House at Haslemere	,,	214
106.	Faulty planning		216
107.	Plan of Ashorne Hill	(*The Builder*)	217

FIG.			PAGE
108.	The Hall, Ashorne Hill	(*The Builder*) ...	218
109.	Staircase with cramped headway	... ...	219
110.	House, Connecticut	(*American Architect*) ...	220
111.	Old Colonial House, Charleston	... ...	222
112.	House in "Old Colonial" style	(*American Architect*) ...	223
113.	St. Margaret's House, German Town, U.S.A.	,, ...	224
114.	French "Maison de Campagne"	(*Construction Moderne*)	225
115.	Modern Viennese Villa	(*Wiener Bauten-Album*)	225
116.	Viennese villa of fifty years ago	(*Wiener Bau-Industrie Zeitung*)	226
117.	Villa, Beethoven-Strasse, Berlin	... ...	226
118.	Design for a cottage residence	(*The Builder*) ...	228
119.	Design for a cottage residence	,, ...	229
120.	Interiors in house, Manchester-on-sea ...	... ...	230
121.	Sea-side cottage, Narragansett	... ...	231
122.	Town house, New York...	(*American Architect*) ...	232
123.	House, Avenue Bois de Boulogne	(*Construction Moderne*)	233
124.	"Haddon Hall" Mansions	(*American Architect*) ...	234
125.	Apartment House, St. Louis	,, ...	235
126.	Apartment House, Bloomsbury	(*The Builder*) ...	236
127.	Apartment House, Budapest	(*Construction Moderne*)	237
128.	"Metropolitan" Club, New York ...	(Photograph)	238
129.	Varied treatment of street houses	(*The Builder*) ...	246
130.	Shop front	,, ...	249
131.	Street front	... ...	250
132.	Design for street front	(*The Builder*) ...	251
133.	Street front	,, ...	255
134.	City Bank	,, ...	256
135.	United States Trust Co.'s Offices	(Photograph)	257
136.	House front	(*The Builder*) ...	258
137.	House, Buckingham Gate	,, ...	259
138.	House front	,, ...	260
139.	Union Trust Co.'s Offices	(*Architecture and Building*)	261
140.	Front of Glasgow Athenæum	(*The Builder*) ...	262
141.	New Zealand Chambers	,, ...	263
142.	American Surety Co.'s Buildings	,, ...	264
143.	A strong angle	(Photograph)	265
144.	A weak angle	(*The Builder*) ...	265
145.	House front with decorative sculpture ...	(Photograph)	267

PREFACE.

THE idea of this book originated in a short course of lectures delivered by the author to the Class of Design of the Architectural Association, at the request of the Council, and which went on the main lines taken in the first four chapters of the book. The lectures were neither written down nor published in any form when delivered; the substance of them is here expanded into a form which places the subject in a light in which, it is hoped, it may be of interest not only to architects but to those who are their clients, to those who take a general interest in an art which is of so much importance to the nation at large, both in a practical and artistic sense.

The main object of the first chapter, on "The Present Position," is to offer an answer to the views propounded by a section of architects and architectural critics of the day, who wish to regard architecture as a purely ideal art, dissociated from the practical considerations which the conditions of modern life, as it appears to me, inexorably impose upon the architect; to look only at one side of the work of the architect and turn their back on the other, the more prosaic and practical side; a position which appears to me entirely untenable.

The chapters on "Church Architecture," "State and Municipal Architecture," and "Domestic Architecture," are an attempt to summarize what has been accomplished recently, and what is required, in those three branches of contemporary architecture, with illustrations taken from designs and plans of modern

buildings. The chapter on "Street Architecture" embodies, I believe, a rather new treatment of the subject, in the attempt to consider architectural design in reference to the special conditions existing in the case of buildings which form portions of a street, and in which the architectural design consists only of a street frontage. A portion of this chapter formed part of a paper on the subject read to a general meeting of the Architectural Association in December last, and partially reported at the time in some of the architectural journals; but this is the only portion of the book which has appeared in print in any form.

A considerable number of the illustrations are reduced from plates which appeared from time to time in the *Builder*. In the majority of cases these may practically be regarded as illustrations from the architects' own drawings, only they are reproduced from the *Builder* plates in order to save the owners of the original drawings the trouble of lending them again. This use has been made of them with the concurrence of the architects of the buildings represented, except in one or two cases where the architect had gone abroad, or where his present address could not be ascertained. Other illustrations are from photographs, from foreign architectural journals, or from drawings made purposely for this publication. The source of each illustration is acknowledged, as far as possible, in the index of illustrations.

In two or three cases where a plan, or part of a plan, of a modern building has been used to illustrate mistakes in planning, anything which could identify the building or its author has been purposely avoided.

H. H. S.

LONDON,
August, 1897.

CONTENTS.

CHAPTER		PAGE
I.	THE PRESENT POSITION	1
II.	CHURCH ARCHITECTURE	40
III.	STATE AND MUNICIPAL ARCHITECTURE	96
IV.	DOMESTIC ARCHITECTURE	175
V.	STREET ARCHITECTURE	241
VI.	A NOTE AS TO THE INFLUENCE OF IRON	269

MODERN ARCHITECTURE.

CHAPTER I.

THE PRESENT POSITION.

UNDER the term "modern architecture" I propose to include, for the scope of these chapters, the art of architecture as practised at the present moment, or during the present generation. There is nothing to be gained by going back to review the progress of modern architecture in the generations immediately preceding our own, and the various "revivals" of styles which have followed each other since the early part of the present century. That is a matter which has been fairly talked out, and concerning which there is nothing new to be said. Here we are with our existing task before us—people carrying out works in architecture, or preparing to carry them out, under existing conditions. It is important to understand the conditions—what we have got to do, what we want to do, and how we can best set about it.

Now if there is room for a special consideration of "modern architecture" as such, it is evident that there must be some recognizable difference between modern architecture and ancient, to admit of this separate consideration, and it is important to realize exactly in what this difference consists. Of course we all know of one difference; that which has been dinned into us

relentlessly by modern critics, viz. that modern architecture imitates and adopts forms belonging to previous styles, and ancient architecture did not. I am not sure that the importance of this distinction has not been a little exaggerated; but we will pass over that for the present. At all events, it is not the only difference between ancient architecture and modern, although it is no doubt the one which every one can most readily apprehend. It is the principal difference between ancient and modern architecture in regard to what may be called "architectural features" (a phrase of which we shall hear more just now). The other differences lie more in the conditions and requirements of modern architecture as compared with ancient; they are less easy of apprehension, but they are very important indeed.

In the first place, the planning of a building has become, under the influence of the refinements of modern civilization, a perfectly different problem from what it was in any former period of architecture, and an exceedingly complex and difficult one. In the greatest periods of ancient architecture the greatest buildings were temples or churches. In these no complication of plan was called for, and the plan in fact was little more than the result of the placing of the principal walls and supports required to carry up the structure. The plan, in an Egyptian temple, in a Byzantine church, or in a mediæval cathedral, was not only intimately connected with the design—you may almost say, in a sense, that it *was* the design, or one view of it—it represented the position and outline of the main masses of the structure, and when you know the style you could almost erect the design, in its main features, from the plan. The building consisted of a comparatively few great compartments opening out of each other; and such accessory compartments as there were, were quite subordinate to the main structure, and

hardly interfered with its effect. In connection with the mediæval cathedral we have the cloister and its surrounding subsidiary buildings opening out of the cloister walk, and this is the nearest resemblance in ancient architecture to the modern system of planning. But this is a very simple treatment, the rooms all opening out of a corridor open to the air on one side, while the various buildings themselves were free to extend just as convenience dictated, on a site with no precisely restricted boundaries. There was little care to group these conventual buildings into anything that could be called an architectural design ; the architectural design was the church ; the conventual buildings were, in an architectural sense, only an adjunct. The cloister itself was an element of architectural effect, no doubt, though it was perhaps hardly regarded as such by those who built it ; but the buildings opening out of it (except perhaps the chapter house) were simply utilitarian ; all the "architectural effect" was concentrated in the great church.

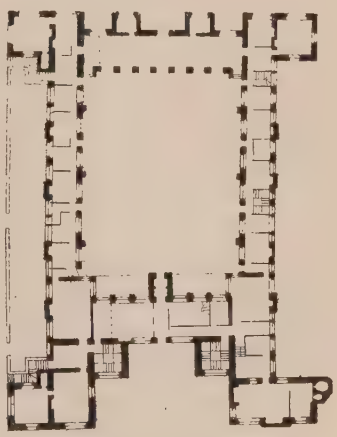


FIG. 1.—A RENAISSANCE HOUSE.

When, in later times, we come on the development of the mansion and the palace into great buildings which constitute one architectural design, but are subdivided into many rooms, we still find remarkable simplicity of plan. In most of the great houses of the Renaissance period the various blocks which constitute the whole architectural mass are merely subdivided internally by walls with doors in them ; one apartment is entered out of another, and the relation between plan and exterior design is still of a very direct and simple character (Fig. 1). So it was

also with the plan of the Greek and Roman house, which in most cases was probably almost entirely an interior architecture, and in which the plan was of an exceedingly simple and straightforward character, the domestic life of the time not being ordered so as to demand any more complicated subdivision and grouping of the apartments.* Almost the only ancient buildings which exhibit complication of internal plan are the remains of some of the prehistoric Greek houses, such as the palace at Tiryns, and some of the palaces of such semi-barbarous nations as the Assyrians; and here the complication may rather be considered confusion of plan; there seems to have been a perception that many rooms were required, but they were jumbled together on no apparent system, so that one wonders how people found their way about such interiors at all.

How different it all is nowadays. In our churches, indeed, we still find that the plan, as in the mediæval church, is completely and obviously a part of the design; but churches have ceased to be our largest and most important buildings; the civil life has over-ridden the religious life; and in civil architecture, whether public or domestic, the old simplicity of plan is no longer accepted as satisfying practical requirements. We are no longer content to walk in the old nonchalant fashion from one room to the next, to use one apartment as a passage to another. In our public buildings it is demanded that the plan should be laid out so as to group

* It may be urged that such institutions as the Roman Thermæ were examples of complicated buildings planned in the modern spirit; but I cannot agree with this, and only refer to the point here lest it should be supposed that I had overlooked it. The Roman Thermæ were very large and elaborate buildings, but not complicated; on the contrary, their planning was of the simplest kind, and was arranged almost entirely for effect. They had nothing in common with the niceties of planning required in a modern town-hall or mansion.

together conveniently the rooms allotted to each separate department, while grouping the departments themselves so that those which have direct relation with each other should be in a position for convenient intercommunication; that those rooms which require special provisions in regard to light or aspect should have them; that those in which quiet is essential should be placed so as to be away from exterior noise; that the portions of the interior which are intended for public access should be well defined, so that the public should, as it were, be actually controlled by the plan—"Thus far shalt thou go and no further,"—be admitted only where they are wanted. On the other hand, the plan must also assist the public; it must be arranged so that they are led, by obvious indications, towards the points they wish to reach, and arrive at them easily and naturally. And in a public building under modern conditions all this has to be arranged, almost invariably, within strictly defined limits of site. In a large dwelling-house, again, we are not now content with the simple method of the great Renaissance mansions, where the aim was merely to arrange a suite of state apartments on the sunny side of the house (or sometimes even ignoring the question of aspect), and to have an effective hall and staircase, and then let the rest of the rooms come as they would, so that all the bedrooms, perhaps, opened out of each other, without any other means of access. Nowadays the owner requires a number of details to be considered which were un-thought-of in the house-planning of our forefathers, or (more probably) the architect has to consider them for him: each reception-room or sitting-room must have the light and aspect best suited for its particular use and its usual hours of occupation; the offices must be separate from and yet contiguous to the apartments they are to serve; the bedrooms must be grouped and planned with a view to domestic

privacy as well as convenience of access ; lavatories and their adjuncts must be placed where they are accessible and yet not noticeable, and so forth.

A great deal of this demand for the consideration of practical detail in planning has really only come to a head, especially in regard to public buildings, within the present generation. One has only to visit St. James's Hall to see what sort of planning of a public building could be tolerated only thirty or forty years ago, for what was intended to be the principal concert room of the capital ; or look at the Birmingham Town Hall, or St. George's Hall, Liverpool, both very fine buildings in their way, but with plans such as any assessor in a competition would now put aside at once as ineligible. In architectural competitions we see, in fact, that year by year this question of convenience of plan is more and more emphasized, so that in the most important and best-managed competitions it seldom happens now that a design is selected except under the profession, at least, that it is the best planned of those submitted.

All this puts the art of architecture in a very different position from that which it occupied when the principal buildings were erected on a simple plan which formed a purely artistic conception, untrammelled by merely practical requirements. A great deal is now demanded of the architect besides the production of a striking and impressive structure. Generally speaking, indeed, there will be, even in the complicated modern building, some principal apartment, the treatment and position of which will form the key of the whole design, and which may be emphasized in the exterior design ; though even in this case it not infrequently happens that it is most convenient and economical to keep this large compartment in the centre of the plan, and therefore out of the possibility of forming an

important feature in the exterior design. Our building then becomes, as far as we can treat it externally, an ingenious combination of rooms and corridors, arranged not so much for effect as for convenience; groups of rooms which may be massed into blocks in the architectural design, and may be treated with more or less picturesqueness and contrast in detail. The grand and simple relations between plan and design which characterized a temple or a cathedral are lost. The architect is no longer an artist pure and simple; he is the contriver of a plan in the first instance, and though he should always have a general conception in his mind to work up to, it is only when he has ascertained that the detailed practical requirements of his plan will fit into it that he is really at liberty to develop it in architectural form.

I have enlarged on this point, though my readers may say that it is only what they all knew, because it is one which has a most important bearing on the question, so warmly discussed at present, as to the real position and function of the architect as an artist, and we shall have to return to it again just now in considering that part of our subject. In the mean time, let us glance at one or two other conditions which especially affect modern architecture, and which also, as we shall see, affect this whole question of the position of the architect. One of these is the fact that in almost all cases buildings are required to be completed much more quickly than formerly. We live at greater speed: the agency of steam has cut both ways; while it has shortened our journeys and facilitated intercommunication, it has also shortened our work, accomplishing a great deal of the rougher work in the preparation of building materials. Building committees know very well that it is now possible to fix a date, and a comparatively early one, within which a large building can be completed, and they demand that it

shall be completed within that time. In ancient days the building of a cathedral dragged on from generation to generation; the wealth of the country was much less, the cost and delay in the preparation and transit of building material was very great. Chaucer represents the monk begging for money at one of the houses he visits:—

"By God, we owe yit fortie pound for stones"—

a pretty large sum in those days. And the correspondence which is preserved of some of the men who carried out large mansions and other buildings in the Renaissance period—that of Bodley, for instance, about his library at Oxford—shows how easily and how placidly the whole thing went on; a letter one week about a possible door that might be made where none was originally intended, another shortly after enclosing a "trace" for a "fair bay window;" but all in an easy, jog-trot manner, so that a man who commenced a large house for himself might be lucky if he got into it in his lifetime. Pugin, who was nothing if not mediæval, was so impressed with the slow movement of mediæval work, that he seems to have regarded it as an essential element in the revival of mediæval architecture; and when a member of a committee for the erection of a Catholic cathedral inquired when it would be finished, "for all reply" Pugin demurely gathered up the drawings again, saying that he was not going to start a cathedral for people who imagined that it could be built at once—it was a matter of generations. It was not a very wise remark even then; it would be palpably absurd now; nothing but the want of funds prevents Truro Cathedra from being finished at this moment. No doubt, on the other hand, the rage for rapid building is carried to a most pernicious extent in regard to many new London buildings, which are run up by relays of men working night and day, in the mere desire

to handle the rent at the first possible moment ; a system under which not only good architecture, but good building is impossible. But these are the class of buildings which are carried out as mere speculations, and in which for the most part no architect, properly so called, is concerned at all, and we need hardly consider them seriously. But we must recognize that in the case of buildings which are not mere speculations, and which are intended to be good architecture, there is in the present day an impatience of unnecessary delay, a desire to have a building completed within a definite and stated period, which is a part of the whole system of modern life ; we cannot escape from it, and it is no use pretending to ignore it ; and this fact again, as we shall see, has an important bearing on the question of the present position and function of the architect.

Again, we are met by absolutely new conditions in modern architecture, not merely in regard to complication of plan and rapidity of execution, but in the demand which is now made for the complete and systematic technical treatment of heating, lighting, ventilation, and drainage. The latter subject ought perhaps no longer to be classed as a special technicality ; it is one which every architect may and should understand in detail himself, and which the best architects of the day do, in fact, understand. But the carrying out, in a large building, of complete systems of electric lighting, of heating, and of mechanical ventilation, involves a degree of knowledge of the mechanical details of each which it is hardly possible that any one man should possess who is at the same time occupied with the problems of planning and designing in the architectural sense. This side of the modern architectural problem is also a new one, almost within the present generation. We have only recently succeeded in getting our drains right—indeed, some contentious persons maintain that we have not managed

it yet; we are still experimenting with ventilation; we are rather divided as to the merits of two or three different systems of heating, though there is more certainty here; and electric lighting is an absolutely new industry, so new that it is in process of modification almost from month to month, and only those who give it their special attention can keep pace with it at present, though of course this will not always be the case; it will settle down into accepted grooves in time.

In these matters, then, an architect must to some extent depend on the assistance of experts, specialists, who plan the installation and oversee the carrying out of the work in detail. He may be himself a specialist in one of them, but hardly in all. I know one practising architect who, I believe, could direct the whole process of an electrical installation as well as a professed electrician; I know another who could probably design and supervise all the details of a mechanical ventilation system. But I do not think any one can grasp the whole of these various engineering specialities, or pretend to be himself the technical supervisor of all of them. What I think the architect can do is to master the principles of each of these branches of work, so as to know what is required, what result should be obtained, and whether one method is better than another under the special circumstances; and if so, why it is better. No architect, however pure and elevated his desire to be an artist, should allow himself to be in the position of giving up the arrangement of any department in his building unreservedly to the specialist. He should demand from the specialist a full statement of what he proposes to do, and the reasons for it, and he should know enough of the principle of the work to know whether those reasons are good or bad, and to insist upon the employment of the system which appears to him to be the best. So far, at least, he should be able to go; so far, at least, he should

make himself personally responsible, both on his own account and on that of his client. It is not desirable that he should allow himself to be a cipher in regard to any portion of the work which is nominally under his control. I remember once going to see the operation of pushing up the wall of a great church, which was out of the perpendicular, by means of hydraulic jacks. The operation was got through more or less successfully, but violently and clumsily, and with considerable injury to the walls and piers, which might have been easily avoided under the orders of a directing mind. But there was no directing mind. The nominal architect was afraid of the task, and left it to the contractors and the clerk of the works; and the latter was obviously desirous to exhibit his energy, and to show in how short a time he could run this little job through; the result was, walls and piers cracked and split, which might have been straightened without injury by the exercise of a little judgment and deliberation. The architect took no part even in the arrangements for the application of the power, and while it was in course of application was heard to admit that he had no knowledge of the principle on which the hydraulic press acted. You may say that the hydraulic press has nothing to do with the art of architectural design. Perhaps not; but any one who chooses can learn what is the principle of development of power in a hydraulic press in five minutes; and if he is going to have a building under his charge pushed up by hydraulic power, he had better take the trouble to know how it is done, otherwise he will hardly be in a position to make himself respected as an architect.

In connection with this part of the subject let us emphasize the necessity of foresight on the part of the architect as to the preparation for any special technical work on the building which has to be provided for. Though he may not be able to

supervise it all himself, he should bear in mind what provision it is necessary to make for it. If your building is to be lighted by electric light, it is rather annoying to be told by the electrical engineer that he will have to cut through a number of thicknesses of fireproof flooring to get his wires and insulators through, when you might, by a little forethought and previous inquiry, have left him all the necessary conduits. The necessity for preparing for heating apparatus, steam- or water-pipes, or ventilating extracts, is not usually overlooked, because we have been at that for some time; electrical installation is a comparatively new matter, and its requirements are sometimes forgotten. "The complete architect," to adopt an old-fashioned phrase, is called upon to foresee everything in the actual working of the building, to see it in his own mind as it will be when completed, and to realize beforehand all that is required to make it complete. We come across various examples sometimes of want of foresight, even on the part of very eminent architects. However we may laugh at Lord Grimthorpe's pretence to pose as an architect in the highest sense of the word, he certainly "scored off" the profession in two instances within my recollection: one, when he pointed out that the architect of the Houses of Parliament, though he knew that a great bell would be required for the striking of the clock in the clock-tower, had provided no way for getting it up, so that the floors in the tower had to be broken through to make a passage for it; the other, when he pointed out that the architect of the Law Courts had provided for a large clock in his tower, but had forgotten that large clocks are driven by weights, which require space to fall, and the landings had to be cut through to give passage for the weights. Of course a chase in the wall should have been provided for them from the first. That is what comes of not realizing things beforehand. Again, I have heard

of a case of a town hall in the basement of which ample room had been provided for the large boilers necessary for steam heating; the architect had, in fact, taken a good deal of trouble to ascertain what kind of boilers would be required and what space they would occupy, but he had forgotten to provide for getting these large boilers into the building when completed, and in the end the wall had to be broken through to accomplish it.* That is another instance of want of prevision, which is a special stumbling-block in regard to modern architecture, with its various and complicated practical requirements.

Now let us quit the practical considerations to turn towards what is usually called the artistic side of architecture, the presentment which the building makes to the eye, and which we call generally its "design"—a word rather loosely used, because really the design includes the plan, or should do so; but still we know what is meant by it. Now, in what does this "design" consist? Let it be allowed that we might erect a brick or stone building with plain openings in the walls for light, and that we should not call that an architectural design—probably we are all agreed there—what have we to do to raise it into architectural design? Perhaps no two people would define it exactly alike, but I think the average process may be pretty fairly described as follows: We should begin by grouping the openings with some reference to their purpose and their relation to the interior arrangement; we should emphasize the lower portion of the wall, as the base supporting the whole. If we have a roof so constructed that its eaves overhang the walls, we should emphasize that constructive fact by a cornice; otherwise, and with another method of roofing, a widely projecting cornice

* In such a case it is not merely a question of getting the boilers in at first, but of allowing for taking them out for repair, or for replacing them with new ones when required.

is not essential as a matter of mere design, and it is a curious fact that since the Renaissance period the buildings in which the cornice has the most projection and is most emphasized, are exactly those in which the structure of the roof is *not* overhanging; the roof-construction in most buildings of the modern Renaissance type has nothing whatever to do with the cornice, but is quite independent of it. The Classic cornice derives originally from the Greek Doric cornice, which was the expression in stone of a timber roof with projecting eaves; but it has lost its old constructive meaning, and become a purely æsthetic detail. To resume: in the process of elaborating what we call an architectural design, we should break up the height of the building by horizontal divisions, either to mark off the stories or to break up the height of the wall into sections of contrasted proportion, or to emphasize the length and horizontality of the building; or we may choose, in a similar manner, to emphasize its vertical lines. We can introduce decorative framework and accessories to the windows, regarding the separate window as an architectural design in itself, the repetitions and grouping of which go to make up the main design. We can select one portion of the front for special decorative treatment, in order to mark it out from the rest, either because it is of special importance, or for the sake of producing picturesqueness and contrast of effect. And we may take, and constantly do take, the semblance of features which by long association have acquired a special architectural meaning or motive, and make use of them to assist the decorative expression of the design; such features as pilasters or wall-arcades. Finally, there comes carved work and sculpture, which is rather an addition to architectural design than an integral portion of it; at least, its function in the architectural design depends as much on its position in relation to the whole as on its own detail considered separately.

That is, I think, about a fair general description of the usual process of making up what is called the exterior design or façade of a building ; it is a very general description, and leaves room for any amount of variation in detail ; but the process obviously relies a good deal upon accepted habit and precedent. And now some very clever and earnest men among us are asking why we should do all this, and why we should not return to the primary elements of building, discard all things that can be called "features" in the design, and simply make it a frankly expressed structure. In the second of Mr. Lethaby's remarkable lectures, delivered a year or two since in connection with his office as Inspector of Technical Education under the London County Council—I consider they were most remarkable lectures both in earnestness of tone and in force and picturesqueness of language — he proposed a method of exclusion for getting rid of all the conventional features of architectural design. He said, "the third corner-stone in any positive foundation for a modern building is *need* or *utility*. It might be said that as soon as you put pencil to paper some distinctive style would come in; but when the drawing has been made, can we not begin again and hunt down every trick of style one at a time—engaged pilasters, pedimented windows, etc.;" that is to say, reduce architecture to the simple element of construction with which it first begun. I have no weakness for pilasters or pediments, though it may be said that a pediment of some kind, a projection with a sloped-off or curved-off upper surface to run off rain, may claim to be a useful protection to a window, and therefore has its practical right to existence. However, we undoubtedly see too many pediments and pilasters, all very much alike, and introduced not as the result of thought but to save the trouble of thinking. But I want to know why we are to feel called upon to adopt a position—that of beginning over

again, so to speak—which has never been deliberately adopted in any other period of the world's architectural history.

Even going back to the pre-Renaissance period, we still find that each style, spontaneous outgrowth as it might seem to be, owed a great deal of its detail to a preceding style. Roman architecture is based on Greek. St. Sophia, at Constantinople, was one of the most original buildings ever erected, and its great glory arises directly out of its construction; yet where did Anthemius get his columns from? They are only the Greek and Roman column and capital slightly modified. Romanesque was a rude imitation or degradation of Roman, and out of that arose Gothic; but the Gothic shaft, with its carved capital, would never have existed but for the Corinthian column. We are told that architectural design does not consist in the addition of "features," that it is solely the expression of construction and material, and that modern architecture is futile and insincere, because of its constant employment of "architectural features" which are not necessary to the construction. Yet those who despise modern architecture for this reason, will admit that mediæval architecture was a genuine and unsophisticated style. And has mediæval architecture no "features"? What, for instance, are the decorative wall-arcades (Fig. 2), found even in the stern Romanesque and Norman architecture, but "features" inserted as a means of architectural expression, as an element in the elaboration of a design? If the employment of such features for such a purpose does not condemn mediæval architecture, why is modern

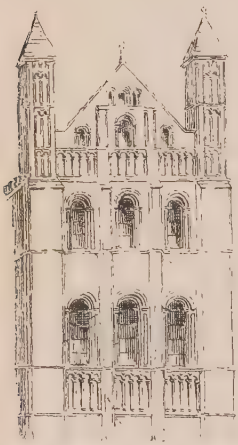


FIG. 2.—DECORATIVE ARCADES IN NORMAN WORK.

architecture to be condemned for using similar means of effect, so long as they are not mere copyism? Take the case again of the form of the Classic column. There is no doubt far too much of mere copying of this feature in a perfunctory manner. We ought not to be content with that, we should endeavour to modify it for our own purposes—to improve it if we can—to treat it in our own way in accordance with the suggestions arising from new material and new methods of building. But in its main essentials the feature of column and capital has imposed itself on architecture in such a manner that it cannot be shaken off or ignored. It has become an element of architectural expression. It is everywhere, in all styles, all over the world, in all ages within historic record. We find it in a somewhat clumsy form in Egypt; in a highly refined form in Greece and Rome, in a less refined but more picturesque form at Constantinople and Ravenna; in a grotesque but still recognizable form in Hindu architecture; in a fantastic and ill-designed form in Persia; in a delicate and playful form in the fancies of the Saracenic architects; in a very much changed form and proportion in mediæval architecture—the change arising naturally out of the peculiar use to which it was put, as a feature in a pier, instead of being itself the pier—but still, under all these forms, perfectly recognizable as to its origin. We find it used by the Renaissance architects, as a means of expression, in a manner of their own; for though they imitated Roman detail, they applied it after their own fashion; they showed originality of conception; they used the old classic materials to work out their own ideas. We have too much come short in this respect, no doubt; we have fallen far too much into the mere imitation of the Renaissance combinations; that is a fault which may be amended. But why are the architects of nineteenth-century England alone, out of all the

peoples who have practised architecture in all the centuries—why are we alone to be told that we shall not touch the column or any of its derivative forms; that it is the accursed tree; that if we eat of it we shall architecturally die?

It is a question whether we really have any choice in the matter. The new prophets may preach as much as they like about the duty of beginning afresh, casting away old forms, and remodelling architecture on the basis of pure structure, but man is not made so that he can put forth new ideas at will. As already observed, there is no style of architecture in the world which has not been largely dependent on that which preceded it; only in simpler and less learned days the architects of each generation were dependent only on the generation immediately preceding them, because they were acquainted with nothing else. But travel and books and photographs have placed all the styles of the past within our reach; we know all that has been done, and it is impossible to avoid being influenced by it; we have not the power of deliberately closing our eyes and our minds to the impressions of the past, and it is useless to demand that we should do so. We *must* be influenced by them, whether we wish it or not; the deliberate effort to avoid being so in any way is only likely to land designers in eccentricity—the desire to produce something odd and unclassable, in order to gain the praise of "originality."

Even if it were possible, is it wise to try and isolate ourselves in the manner proposed? To do so would be really to deprive ourselves of all the result of the thought and the shaping power of the generations who before us have given their minds to the development and refinement of expressive architectural detail. The best of their works are models from which we may learn much, and on which we may, if we try, further refine and improve. There is an almost endless possibility of design in the

way of combination and grouping in architecture, without refusing the use of any special type of detail because it has been used before. Compare the case of architecture with that of literature. In poetry there have been highly elaborated forms of verse invented, which are really forms of literary design. Dante invented or perfected a singularly effective artificial form of versification for his great poem, consisting of three-line stanzas, in which the first and third line rhyme with each other, and with the middle line of the succeeding stanza. Spenser matured a still more elaborate form of stanza for his "Faërie Queene." The Italian and English poets of the Renaissance invented two or three forms ("orders," an architect might call them) of the sonnet, a highly artificial type of poetic design. If we were to apply to poetry the same reasoning which has been applied to architecture, we should have to tell poets that they had no right to use the Spenserian stanza, or the sonnet form, but must invent new forms, or they are not "original." Yet the fact is that a number of sonnets have been written in modern times, in exact adherence to the old form, which nevertheless are perfectly original and great poetry, with a separate right of existence.

Or take music, an art which has a closer analogy with architecture. The form in which the great musical poems called "symphonies" are written is a strictly defined form, with certain main features and proportions which are always present. It was got into shape in the time of Haydn, and to a great extent by his personal genius; but it has proved so satisfactory a form that no great instrumental composers have cared to depart much from it, and yet they have not given up their originality. The symphonies of Beethoven are all, with the exception of the last movement of the last one (which was a new experiment), composed on the same general model as those of Mozart, and

yet they are perfectly distinct and original, and no one could mistake the one composer for the other. It does not do to push these comparisons too far; but in a broad general sense they are not without significance. And in regard to architecture, the true use of the forms of the past was really suggested by Mr. Lethaby himself, when he said that "out of the critical use of past tradition, we must build up a tradition of our own." There I have the pleasure of finding myself in co nplete accordance with Mr. Lethaby; I do not think the point could be better put in one short sentence. The essence of the recommendation lies in the word "critical,"—"the *critical* use of past tradition," not the blind use of it as a mere habit. We have to consider how far such a form of detail, for instance, is suitable to the position in which we use it, and to the material we are employing; also, how far we can improve it or modify it, so as to put the stamp of our own personality on it. I believe every architect can do that if he gives thought to the design of his building. Some of the Italian Renaissance architects really did carry out, and carry out very finely, this "critical use of past tradition." They used the tradition of the Romans, but they applied it in their own way; and though all the principal details of their buildings are taken from antique sources, yet such buildings as the Riccardi, Pitti, and Farnese palaces, and others that might be named, are certainly original architecture. We are in somewhat the same position as the Renaissance architects; we are more or less dominated by the past, with the additional advantage or disadvantage (whichever way you put it), that we know a great deal more than they did. Where we have failed, I think, is that we have not made that "critical" use of the materials of the past which they did; we have descended too much to mere reproducing. What we need is to give more thought to our method of making use of the materials which

past generations have accumulated for us. But that is quite a different thing from throwing them all away as useless lumber.

But then, we are told, all "style" in architecture is the result of the influence of structure and materials; and if we are to have a style of our own, we must begin again from the basis of structure. Well, that was certainly the case with Gothic architecture; the style arose out of the fight with the difficulties of vaulting, coupled with the necessity the builders were under of using small stones, for want of the mechanical means to deal with large ones. It was the case with early Greek Doric, which arose out of the structural expression of timber building, at least, as far as the entablature is concerned (I do not myself feel by any means convinced as to the wooden origin of the column). But the theory that all styles are merely the expression of structure will not cover the whole ground; it will not account for all the styles of the world, or for all that is in them. Architecture is to a great extent a symbolism; not in the sense in which we use the word "symbol" in ecclesiology, in which the fish, for example, is the symbol of Christ; but in a wider and more comprehensive sense, it is a kind of attempt to symbolize in the form and details of a building an ideal in our minds, an ideal which goes a great deal further than the mere expression of construction. The character of the man, or of the race, is written on the building. What are the long avenues, the dimly-lighted columned halls of the Egyptians, but the symbols of that strange unfathomable Egyptian mind which stands sentinel, as it were, over the beginnings of human history; an enigma which, with all the light of recent exploration and decipherment, we can still only partially understand and realize. What are its lotus-shaped capitals? Not the expression of construction—a slab would have done as well for that; but the

expression of their delight in the lotus flower, and the manner in which it had taken possession of their sympathies. The Greek love of refinement and grace bubbled up in the Monument of Lysicrates; the Roman wrote his wealth and his love of lavish display on the sumptuous but rather over-decorated entablatures of his temples; the rich luxuriant Arab nature, combining the love of colour with the passion for geometric problems, displayed itself in visible form in the type of architecture which we call Saracenic. All this is a great deal more than the expression of construction and material, upon which we have been told that style entirely depends. In that marvellous building, St. Sophia, we may see a notable instance of the fact that mere expression of construction may fail altogether to produce style. Internally, the style of St. Sophia does depend mainly on construction, on the visible and complete carrying out of the domical system of roofing; and it would be grand, no doubt, even without the detail, though its effect is, or was in its original state, immensely enhanced by the luxuriant detail of carving and colour; the writers who described it in its pristine state of splendour evidently thought so, at all events. But externally it is nothing, architecturally speaking; worse than nothing, for it is ugly and ungainly, exactly because it is merely that unadorned construction to which we are now exhorted to return, and which is to save our architectural souls; exactly for the want of those "features" which would have given it expression and style; for what is the "style" of the exterior of St. Sophia? It has no style; it is a piled-up heap of materials to resist the thrust of the dome and of the great arches; it serves its purpose constructionally, but that does not make architecture; the architecture is all internal. And it is remarkable that the contemporary poet, Paul the Silentiary, who is so eloquent in his description of the interior beauties of the church, never bestows

a word on the exterior; there was nothing to say; it was mere unadorned construction.

The truth about this matter of having a style of our own lies in a nutshell. We can no longer expect to see the evolution of distinct and definite styles, because the circumstances under which such styles have been, and alone could be, developed, no longer exist. A completely defined and distinct style, such as the Greek, Roman, or Mediæval, could only be developed during the period when nations were more or less isolated from each other, by difficulties of intercommunication, and from a knowledge of the past, by want of books and learning; so that they were bound to go on working out things in their own groove, having not only no temptation, but no power to do otherwise. We see the difference the moment the Renaissance movement was started, which was a movement following on the revival of learning, and accompanied by the invention of printing. It was marked not only by the revival, more or less, of the style of the past, but also by the development of the faculty of individual choice and taste on the part of individual architects. We speak of "the Italian style," but we must see, if we consider it, that it is not a style in the same sense as the Roman style on which it was founded; buildings produced at the same time differ very considerably in style, according to the idiosyncrasies of their architects. We can only have a single defined style now by the process of revival—of effacing our own intellect and delivering ourselves over, bound hand and foot, to the adoption of that style. We have tried that, and most of us have had enough of it. But the moment free choice comes in, among a civilized and educated people who know all the architecture of the world, personal taste comes in, architecture becomes a personal art; and the idea of having a spontaneously practised national style, always the same and recognizable

everywhere, is for us a mere chimæra. But though we cannot in this sense have "a style," we may have "style" in a design, as an abstract quality; we ought to have it in fact; but it is a quality exceedingly difficult to define in words. Perhaps here again we may get an illustration from literature, where the same difference is felt between style and the want of it. Mr. William Watson is a poet with a perfect style; Mr. Alfred Austin is a poet with no style. If we try to consider what makes the difference, we shall find that Mr. Watson always seems to use exactly the best word to express his thought, so that if we substituted another word the expression of the thought would be spoiled and weakened; while Mr. Austin seems to use any words that will rhyme, or that will fit into the metre. So in a building with the quality of style, we should expect to find no detail used without an apparent reason, and without an evident consideration of its harmony and agreement with other details; we should find nothing inserted which did not justify its position by adding an element to the total effect. That means thought about every detail; in architecture, as in poetry, style is the result of thought and care. If we were to illustrate by examples, we might take two London Clubs not far from each other. The Reform Club (Fig. 3) is a building with style; its good qualities, of course, are largely borrowed, but there can be no doubt that the architect of that building took a great deal of trouble with his details; they are all carefully considered and refined; you could not alter any of them much without disturbing the balance of the whole.* Facing the west end of Pall Mall we may see, in the Thatched House Club (Fig. 4), an example of a design destitute

* It is necessary to point out clearly that I am not instancing the Reform Club as an example of "style" because it happens to be in a recognized and classified historic style (Italian Renaissance), but because it has the *quality* of "style" in the abstract sense, irrespective of any historic classification.

FIG. 3.—QUALITY OF "STYLE."

FIG. 4.—NO QUALITY OF "STYLE."

of style, with a profusion of coarsely conceived ornament, which looks like an unnecessary excrescence on the building. You might hack it about in all kinds of ways, and find the result neither worse nor better than before.

And now, recalling what we have had under consideration in the earlier part of this chapter as to the conditions under which modern architecture has to be practised, what is the position and function of the architect, considered as an artist? We hear very often now that the architect should be considered, and should consider himself, as an artist in exactly the same sense as a sculptor or a painter. That is not only not true; it is absurd on the face of it. Sculpture and painting are the personal handiwork of the artist; they are that or nothing. Unless you are to consider an architect as a man who will with his own hands erect a building from the footings to the roof, and with his own hands model every detail of it as it goes up—which is practically impossible—you cannot group him with the painter and sculptor; he is on a different plane; I do not say a lower one, but a different one. Well, then, admit that he has to make a drawing of his architectural conception, in order to realize it himself and in order to get it carried out by building artisans, still we are told that his only object is to produce architectural beauty and picturesqueness; that is his art, as the art of the sculptor is to produce beauty in the design of the figure. That is the highest aim of architecture, no doubt, but if an architect confines himself to that, he is taking a very one-sided view of his art. A very uncompromising "art architect" said to me, "I hate drainage and ventilation, you know; I like to have all that done for me." I repeated this to a friend of mine who certainly is an "art architect" in his ambitions and predilections, if ever there was one, and his reply was very significant. He said, "Well,

architecture seems to me to be the art of designing the best possible building, *and the drains are part of the design.*" That appears to me to be a much more wholesome and comprehensive view of the function of the architect as a designer, than that which regards him only as the producer of the picturesque in building.

But again, even in regard to the purely artistic result in architecture, we are now told that it is the architect himself who stands in the way of it, by his unprincipled and unnecessary habit of making drawings and giving them to workmen to carry out. "We want," say Mr. Lethaby and his friends, "not drawings, but buildings; we want to have artist workmen who will put their heart and soul into the details, and we shall then find that modern architecture will become interesting just as mediæval architecture is interesting." It *may* be the fact that mediæval architecture was carried out by the inspired artisan, unfettered by guidance or direction; we have no proof of this, however, and the architectural results achieved are to my mind inconsistent with such a theory. But, supposing it were so, it does not follow that a system which produced what was desired in one age will produce what a perfectly different age requires. It is assumed as an axiom by those who reason thus, that all modern architecture is uninteresting; which is an exaggeration. A good deal of it is uninteresting, but we are not without architecture of real interest. Then it is assumed that if we could only revive the system of the Middle Ages, we should have all the same kind of interest and vitality in modern architecture revived, which we now find in mediæval architecture. I doubt it very much. We are not in the Middle Ages. It appears to me that if there is one thing which the history of architecture shows more clearly than another, it is that all genuine architecture has been carried out in a natural and spontaneous

conformity with the requirements and habits of its own time. The idea of forming guilds of artisans educated to take their own part in the work, and originate their own details, as it is maintained was the case on mediæval buildings, is no doubt intended, by those who recommend it, in entire earnestness and good faith ; but it could never succeed, because it would be an artificial effort to put ourselves in a position in which, as a matter of fact, we are not. In the first place (to return to what I have been aiming at in my opening remarks) the architectural requirements of the present day are different from those of any previous age that we know of. It is demanded that buildings should be very carefully and scientifically planned, drained, lighted, ventilated, and warmed, and that they should be produced within a reasonable time ; and to this end elaborate preliminary drawings are an *absolute necessity.* It is nonsense to dream nowadays of setting out a building on the ground, as a Greek temple, a Mediæval cathedral, or a Renaissance mansion, may have been set out ; the modern conditions do not admit of any such naïve process. Secondly, in regard to details of pure design ; extreme refinement of detail, and minute relation of all the parts to the whole, are the special characteristics proper to the architecture of a high civilization. The Middle Ages was not a period of high civilization ; what expressed their ideal could not express ours. The ideal of a well-designed building, to my mind, is one in which every detail, down to the smallest moulding or ornament, is designed with relation to the whole, so that it takes its place as a detail proper to and designed for that particular building. I should like to know how any such ideal is to be carried out on the "inspired artisan" theory. Architectural design in the fullest and most complete sense would become impossible. Indeed, it is difficult to see what part is left to the architect at all under

the scheme of the new reformers. He is not to trouble himself about such things as drainage and ventilation, for they are not "art," and they will be taken out of his hands by specialists devoted to that humble order of work. He cannot work out a plan in detail, for he is not to make drawings, and he can do it no otherwise, in such a way as a building is expected to be planned now. He is to be "in close relation with the craftsman," but he is not to sketch details for him, for that would cramp and fetter the free instinct of the craftsman. Then, in the name of Heaven, what *is* he to do? Stand about while the building is in progress, I suppose, and inspire the craftsman—"Carve something of beauty here, I pray you; I do not presume to suggest what—God forbid that I should interfere with the joyful freedom of your hand. Ha! and, by my faith, methinks a delicate little traceried window in this angle, such as you know how to execute far better than I can tell you, were not amiss!" and so on. Some such *rôle* as that seems to be all that is left to the architect; and perhaps even that may come to be considered as an ill-judged interference, and he will be reduced, according to a suggestion which was made by a poetical satirist on the subject, to the simple duty of receiving cheques.

No; if modern architecture is, as we are told, so uninteresting, it is not because of the habit of drawing the designs; and, if it were, we must be content to remain uninteresting, for we cannot fulfil the multifarious requirements of modern life without studying the building first in drawings. And inasmuch as architecture, in these days of knowledge and self-consciousness, must be a personal and individual art, the individual architect must elaborate his idea in drawing, both for his own mastery of it, and in order to explain it to those who have to carry it out. The defect is not in the fact of drawing, but in what

is drawn. When there was a good deal of correspondence in the *Builder*, a little while ago, about the representation of architecture at the Royal Academy, a well-known architect of the new school, and a man of genius, wrote me a letter unfortunately so violent and exaggerated in its expressions that I declined to publish it (for which he afterwards thanked me), but including one remark which was, at least, very much to the point: what was wanted to make the architectural room at the Academy interesting was, he said, "a few architects." If he had said "a few more architects" there would have been nothing to complain of in the remark. If I have urged that the practical details of planning, drainage, etc., are really a part of the art of architectural design, and that no one has any right to despise them, equally would I urge that fancy and invention in the clothing of the building are necessary to the completion of the design, to the realization of architecture in the fullest sense of the word. It is in this sense that we have not enough architects. The gap cannot be filled by taking merely the ordinary materials of academic architecture and using them correctly in accordance with habit and precedent. We may use the old materials more or less; but if we do, we must use them to mean something. Architectural design, as before observed, is a kind of symbolism. It may be so in a double sense. In a prosaic sense it may symbolize merely the interior arrangement of the building. But in a more poetic sense it may symbolize moods of feeling or association—power, gloom, gaiety, grace, playfulness. As the late Walter Pater remarked in an essay published many years ago in the *Westminster Review*, the architect in his building expresses his own moods; "he closes his sadness over him, or wanders in the intricacies of things." He may use his detail to symbolize ideas of number or proportion, of contrariety

or harmony, of impulse or of line. Some little unexpected incident—a turn or a break in the line of a gable or a coping even, will sometimes arrest the eye, and lead one to think, "Now, why did he do that?" If it is not done out of mere carelessness—if we are able to see a reason for it, such an incident is more than a break of line; it is the symbol of a thought. We may have to recur to this occasionally in connection with the illustrations to the remaining chapters. In the mean time I would say that this idea of the symbolic quality in architectural design, rightly understood, is above all others the influence which may tend to give life and poetry to modern architecture, and that it is in no way interfered with by the fact that you do not build your idea straight off, but, for certain practical reasons, develop it in a drawing first. If people tell you it is, do not believe them; it is not *there* that the stumbling-block to originality and interest in modern architecture lies. An idea is an idea, whether expressed by lines on paper or in solid material. The French are much more dominated by this perception of the symbolism of architecture than we are, although the younger school of English architects are accustomed rather to scoff at the French system of architectural education as ultra-academical. So it is, and there is a feeling springing up among French architects that there ought to be a change, a relaxation of the strictness of the École des Beaux-Arts system of education. But, as a matter of fact, the matured French architects of the first order of talent generally rise above this scholastic education; they get by it in the first instance a very sound and full training in traditional design, and in drawing and construction, but they end by putting their own individuality into their buildings; and I think it may be said that there is more of real thought-out symbolism in modern French architecture, and less of mere copyism, than

is to be found anywhere else at present. I may mention here one very characteristic instance of this which was brought specially under my own notice. At the Paris Exhibition of 1889 there were many pavilions in the grounds for special exhibits, and among others the Society of Pastellists of Paris had one built for the exhibition of their works. This collection I wished to see, and stood on the terrace outside the main exhibition building one day looking if I could see any direction

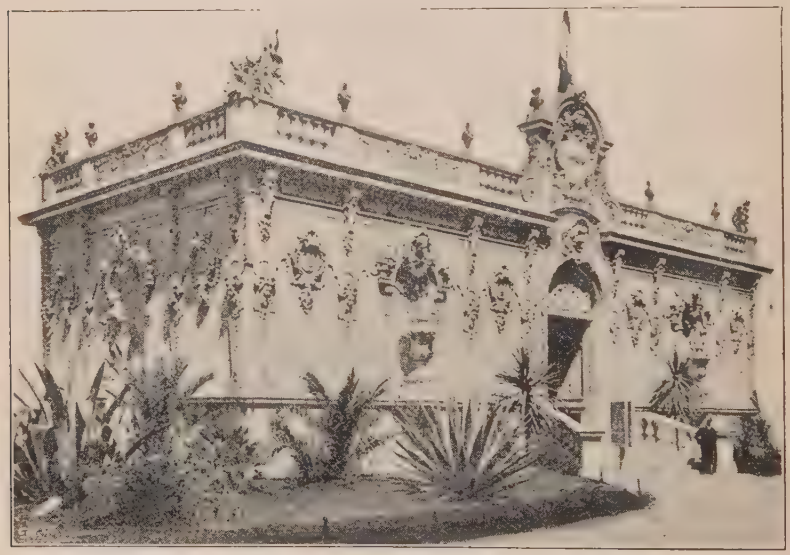


FIG. 5.—PASTELLISTS' PAVILION, PARIS EXHIBITION (M. HERMANT).

or placard about the Pastellists' pavilion. All at once I caught sight of it a little way off; there was no placard or notice that I could read from where I was, but I had no doubt of the building, and went straight to it. I knew the Pastellists would employ an architect to design their structure, and I knew he would put some special character into it. It was an oblong building (Fig. 5), with none of the gimcrack and gingerbread of

the ordinary exhibition pavilion, but with an exterior design showing a light and playful treatment suggestive of piers and an arcade, just recalling architectural features without directly imitating them, and treated with a combination of white and a very subdued and sober greenish tint. The very colour somehow suggested pastels, and the general treatment suggested, as one may say, a side-dish in architecture, just as pastel is a side-dish in painting. It was a very clever bit of architectural characterization, and such as I hardly think any but a French architect would have produced.

In regard to the relation between the architect and the decorative artist, if the architect has commonly far too little control over the decorative accessories of his building, it is to a great extent his own fault. We have to distinguish between the mere decorator and the artist proper—the sculptor, the painter of mural pictures, the designer of stained-glass windows. As to the ordinary decorator, I think the architect ought to design himself all the ordinary decorative detail apart from actual pictorial subjects. There will be two results from this—there will be less of it; and what there is will suit the building, and will be designed in the same spirit as the rest of the work. There is nothing from which modern interiors suffer more than from the doings of what may be called the "decorating firm," and this partly arises from the fashionable demand for florid decoration (in public buildings especially), coupled with the hurry people are in to get it done. The new concert-room in London, the Queen's Hall, is a flagrant example of this. Here is a concert-room very successful in plan, proportions, and acoustic properties, totally vulgarized by being turned over to a firm of decorators to do what they liked with it. It would have been far better just painted in plain colours; it might then at least have been inoffensive. But places of amusement

must be all over gewgaw, or people are not satisfied. The architect should insist on having his own voice in this matter, and teach the public to be content with a thoughtful and restricted decoration suitable to the building, and purposely designed for it.

The decorative artist, properly so called, is another sort of personage. I do not think the architect can in general pretend to sketch the sculpture, or fresco, or stained-glass subject for him to work out, unless he happens to be a man of quite exceptional genius, and perhaps not even then. Burges professed, I believe, to design the sculpture for his buildings; but was it such as would pass muster in the Royal Academy sculpture-room? I should hardly think so. And then the result is that the high-class sculptor will not co-operate with the architect on those terms, so that the work is actually done by the nondescript class of persons who are called "carvers." A carver is a sculptor without style. But the architect should have had from the first a distinct idea of what he wanted in the way of high-class decorative art, and should have designed the architecture in relation to that special idea; and in that case his decorative artist friends, if they find that he has had a distinct programme all along, and has provided for the special effect of their work, will always be glad to confer with him and to work in accordance with his ideal—only he must have an ideal.

About the relation of the architect to the workman we have heard a great deal said lately, not always wisely. It is certainly a most wholesome idea that the workman should be encouraged to take a personal interest in the building he is at work upon, and that, as far as the practical part of his own work is concerned, he should be even consulted, and invited to give his opinion as to the best way of doing this or that. In the good old days, when architecture was pure and unadulterated

professionalism, the architect was a kind of sultan, to be worshipped at a distance by the artisan, who would hardly venture to address a question or a remark direct to him ; even the contractor was the architect's respectful servant (as, I believe, in France he still is), instead of desiring to become his master. But this distant attitude is a bad one, both for architect and artisan, and there is, no doubt, much less of it now than formerly. Still, there might be a more systematic effort to give the workman the opportunity of taking an intelligent interest in his work and understanding what he is working for. Why should not the architect of a large building get the builders and their men together, parade the complete plans before them, and give them a little descriptive sketch of the whole design and intention of the building, the reasons for the employment of this or that material, and the general result which they are all working for? It would be a most popular move, and one would not then so often get the answer, which I have heard over and over again when asking a workman on a building in progress who was the architect: "Don't know." If the workmen "don't know" who the architect is, is not that perhaps partly the fault of the architect? On the other hand, the notion of some of the gentlemen of the new school, that the artisan is to be encouraged to put his own ideas into the work, however well meant, is totally absurd. It is one thing to neglect or snub the artisan; it is another to make a little god of him. The architect must remain the master-mind, and the master-mind of the building should rule in things small and great. And I do not believe that the workman in the least wants the position offered to him by the socialist architects. I have known, and had under me, some first-rate working foremen ; I always took them into my confidence, treated them as friends, and showed them respect and regard, and, when necessary,

asked their opinion on practical points; but I never let them act independently, and I could never find out that they wanted to do so.

Among other points which have been much discussed lately is that of the value of architectural drawing. It has been said that making elaborate artistic drawings of an intended building is waste of time; that drawing is not architecture; and so on. Of course, those who urge that a building should be partially designed by the masons or bricklayers as it goes up will naturally consider that drawings are a superfluous item in the work. Some of those who do not go so far as that, argue that there is no use, for instance, in drawing a range of similar windows on an elevation; that it is quite sufficient to draw one of them and merely mark the position of the others. I doubt that very much; for the object of the elevation is to enable you to study the proportions of the building in little, since it is expensive to alter it after it has been begun. When you have drawn out your range of windows you may find that they look closer together or further apart than you intended; that the design may require more or less wall space in proportion to the openings and their architectural framing. I do not see how an architect is to judge of this in advance except by drawing out the whole thing, though it need not be done with minute finish. And as to the plans and sections, I hold that for practical reasons the more drawing is done first the less trouble there will be afterwards, more especially having reference to the complicated requirements of modern architecture which have been already referred to. The French perhaps carry elaboration of drawing too far; yet it must be remembered that their system of very accurate large-scale geometrical drawing, with the close attention which they give to the study of projection, certainly conduces very much to the thorough study of a design before

it is carried out. I am inclined to think that it is a more valuable form of preliminary study than sketching the intended building in perspective, which is sometimes recommended; because perspective, especially in a comparatively rapid trial sketch, never is set out exactly as it will be in reality, and is likely to be deceptive. If we want to study a building "in the round," a rough model is better than a perspective sketch, because it can be made accurately to scale. But, speaking generally, I would say to young architects—do not be persuaded to despise architectural drawing. As long as balance of parts and finish of detail are considered of any importance in architectural design, architectural drawing is likely to be of value. If we are all to become artisans, of course drawing will go. I heard a story the other day of an eminent provincial architect who looked enviously at the drawings of another man, saying, "Ah, I wish I could draw like that!" "Well, why don't you?" said the other; "you are not too old to begin." "Can't," was the reply; "my father insisted that I should begin with two years in a builder's yard, and the work hardened my hands so that they have never been any good for the pencil." That suggests one side of the question of architectural education which has perhaps been overlooked.

Lastly, we have to face the question which has been so persistently put lately—"Is architecture a profession or an art?" One does not like the word "profession" very much; it suggests something like a lawyer's office with rows of tin boxes with clients' names, and pigeon-holes of filed letters. But for all that a modern architect cannot get away from the hard fact that as architect he is not only designing a building, but he is in the position of adviser to an individual or to a committee in regard to the outlay of often a very large sum of money, on work of which the practical results have to be considered as well as the

artistic; and he becomes the natural and in some cases the legal arbitrator between the building-owner and the contractor. All this implies business habits and some amount of business knowledge. An eminent architect, in a paper read two or three years ago before the Architectural Association, found fault with the elaborate and studious wording of specifications; the specification, he said, was really only "a letter to the contractor telling him what to do." That is a view of the matter which would be likely, I fear, to lead to a good many letters to the lawyer afterwards, as long at least as buildings are carried out by contract. I recall an enthusiastic paper read before the Institute of Architects many years ago, in which the reader of the paper described the progress of a house which he had been carrying out; how they had no contract and no fixed plan, but as a new and bright idea occurred to owner or architect it was worked into the building; the interest of this method of procedure, he said, was very great; it was the true artistic method of carrying out architectural work; and the enthusiasm of the author apparently carried with it the sympathies of his audience. The sequel was that, some time after, the client brought an action against the architect to endeavour to fix on him the responsibility of having made the house cost nearly twice the amount which the client had originally expressed his intention of spending, and to recover some of the amount from him. I forget what the result of the action was, but the fact of it having been brought, under the circumstances, is significant.

Let an architect be as much an artist as he pleases, there is no reason in the nature of things why an artist should not be business-like. Some artists certainly are not; and some (very foolishly) appear to pride themselves on an unbusiness-like temperament and practice; but some of the very greatest artists and poets have been admirable men of business; we need only

recall the names of Shakespeare, Titian, and Handel; and, among architects, Wren and Sir Charles Barry. Therefore I would say to young architects, however artistic are your aspirations, do not be ashamed of being good men of business, especially in carrying on an art so inextricably mixed up with practical concerns. The union of "architect and surveyor," in general practice, is no doubt likely to lead to a man being more surveyor than architect; but nevertheless I recommend an architect to survey the sites for his own buildings himself, at all events in the country (in a town the plan of the site is more a mechanical matter of mere measuring); he is concerned with the adaptation of the building to the site, and he will know much more about the site if he makes his own survey than if he takes another man's, and it is a branch of work which he should at all events be able to do or to superintend when necessary.

In short, the summary of the answer to the question, "a profession or an art?" is that the modern architect will be wise not to plume himself on being exclusively an "artist" in the usual sense of the word. If he assumes that position and acts on that principle, he must inevitably neglect a portion of the work for which his services are demanded; he can only be "the incomplete architect;" and the modern world requires the complete architect.

CHAPTER II.

CHURCH ARCHITECTURE.

CHURCH architecture may be considered either from an ecclesiological or from a purely architectural point of view. The ecclesiological view is that which considers a church as a building to be erected for the conduct of religious worship in accordance with a special creed, the ritual of which is supposed to be fixed by a kind of divine ordinance, and to be always the same from age to age, in its spirit and in its details. To those who thus regard the religious service it is not surprising that the form of building in which it has been carried on at an early or the earliest date should also appear to have a kind of prescriptive sanctity, and that the particular style of architecture traditionally employed should appear to their minds to be emphatically the "church style" of architecture, and all other styles to have the taint of secularity. Thus it was that the revival of an interest in, and enthusiasm for, the mediæval spirit in Christianity, which arose half a century ago, was accompanied by an equally enthusiastic revival of mediæval church architecture, and every other form of architecture was stigmatized as pagan.

It is no part of my business here to criticise the religious attitude of mind which led to this kind of revival of ancient forms of church architecture. But we cannot ignore its existence, or refuse altogether to take it into account. The ecclesiological

view of architecture is, in fact, an exceedingly venerable one. Mr. Herbert Spencer even goes so far as to maintain that the earliest architect was the priest, the religious official who alone understood the mind of the God, and the manner in which the primitive temple must be arranged in order to conform with his wishes; a theory which, if it be true, may account for the reversion to the original position shown in the dictatorial attitude usually assumed by the modern clergyman towards his architect. But if we admit the existence of the historical or ecclesiological view of religion, the ecclesiological view of church architecture is not so unreasoning as it is sometimes considered to be; it demands recognition at all events, and it even affects the question whether we should or should not employ, in church architecture, a reproduction of an earlier style; a question which we shall have to refer to again later on.

It is our main business here, however, to consider church architecture in a purely architectural spirit, as involving the suitable and effective design of a very important class of buildings. In the purely architectural sense, indeed, it may be said that church or temple architecture has been the originating influence in most of the great styles of the past, for two reasons: in the first place, the belief in the existence of a deity who was pleased, and whose support and protection were secured, by the erection of glorious temples in his honour, or even (as was sometimes supposed) for his abode, aroused in the minds of the builders an enthusiasm under the influence of which ordinary considerations of mere cost and of profitable return for expenditure were ignored, and people were impelled to build for a higher end than mere utility; and in the second place, as remarked in the previous chapter, the buildings erected as temples were almost always of a grand and simple character, with a very direct relation between plan, construction, and

design; they presented great spaces in which the whole structural design could be seen and appreciated at a glance, and spaces, moreover, which involved a structural difficulty in roofing, and therefore led to the development of a system by which they could be most satisfactorily roofed in accordance with architectural effect. Egyptian, Greek, Roman, Byzantine, Gothic, were all essentially temple styles. The Romans drew all the architectural detail for their secular buildings from the temples, except where, as in their aqueducts, they relinquished architectural detail altogether. The Hindu style, such as it is, is also a temple style. The Assyrians and Persians were exceptions; but they were semi-barbarous communities where a people living in hovels were ruled by tyrants living in palaces, and where the builders had never learned to roof large spaces in an architectural and monumental manner. The Saracens formed a more important exception. Their religion did not encourage them to erect important temples in honour of the Deity; the only holy place, in that sense, was Mecca; the mosques generally were only a shelter for the worshippers. They were held sacred against the intrusion of unbelievers, but they were not the abode of the Deity; and in connection with this fact it is significant to observe that the Saracenic style, in spite of its exquisite poetic fancy and grace of detail, always remained a decorative rather than a monumental style.

In modern times, and in this country at all events, church architecture has become a secondary matter, because we have no longer the same faith in it as a necessary form of homage to or propitiation of a Deity. That memorable sentence uttered on Mars Hill—"God that made the whole world and all things therein, seeing that He is Lord of heaven and earth, dwelleth not in temples made with hands, neither is worshipped with men's hands, *as though He needed anything*," put the whole

matter at once on a different basis, and cut away the ground for the appeal to the purse-strings of humanity through the medium of their superstitions. The belief in the spiritual necessity and efficacy of temple-building on a great scale revived, it is true, in an early period of the history of Christianity, and culminated in the great period of Mediæval church building, and died out again with the Renaissance: and even the ecclesiological movement of the nineteenth century was not able really to revive it. There is a certain amount of enthusiasm about church-building, among a certain limited number of persons; but where can we now find any such exaltation of feeling raised by the contemplation of the material church and its sacred ornaments as we meet with, for example, in the rhapsodies of contemporary writers about Justinian's great church at Constantinople, where the very lighting of the church was regarded as a means of leading the mind to heavenly contemplation?—

"From a point ever-widening circles spread down until the last is reached, even that which curves around the base; instead of a root, bowls of silver are placed beneath the trees, with their flaming flowers. And in the centre of this beauteous wood, the form of the divine cross, pierced with the prints of the nails, shines with light for mortal eyes.

"A thousand others within the temple show their gleaming light, hanging aloft by chains of many windings . . . and whoever gazes on the lighted trees, with their crown of circles, feels his heart warmed with joy; and looking on a boat swathed with fire,* or some single lamp, or the symbol of the Divine Christ, all care vanishes from the mind. So with wayfarers through a cloudless night, as they see the stars rising from point to point; one watches sweet Hesperus, another's attention is fixed on Taurus, and a third contemplates Boötes, or Orion and the cold Charles's Wain; the whole heaven, scattered with glittering stars, opens before them, while the night seems to smile on their

* A hanging lamp shaped like a boat.

way. Thus through the spaces of the great church come rays of light, expelling clouds of care, and filling the mind with joy." *

We can scarcely imagine any such rhapsody as this excited, in the present day, by the contemplation of church *coronæ* of ecclesiastical pattern purchased in Southampton Street, any more than we can enter into George Herbert's pleasant and naïve fancies as to the sacred or moral symbolism of the various portions of the edifice, or Keble's still more weak and fanciful analogy—

> "Three solemn parts together twine
> In Harmony's mysterious line;
> Three solemn aisles approach the shrine."

If the "three solemn aisles" were ever intended as an emblem of the Trinity (an idea which architectural history entirely refutes) we have done with that now, since the modern tendency in church planning is more and more towards an architecturally one-aisled church, with small side aisles for passage only. In short, we are now planning churches for the convenience of worshippers, with a due regard to the economical expenditure of funds collected and administered by a committee, only with a kind of latent idea that we give them the aspect of religious buildings by adopting a more or less mediæval style of architecture, even in the hideous temporary structures called iron churches, which are made to do duty until the funds for the more permanent edifice can be raised. We may keep up the pretence of building churches "to the glory of God," but in fact we build them for ourselves—by contract.

All this does not imply that we are less religious, in the true sense of the word, than those who built St. Sophia, or

* From the poem of Paul the Silentiary, as translated in Lethaby's "St. Sophia."

Amiens, or Lincoln ; * the opposite conclusion, in fact, might be deduced—that our religion is of a more spiritual type and less dependent on mere material aids and symbols. But in an architectural sense the modern rationalistic spirit in church-building is much to be regretted, since the church still remains almost the only class of building in which it would be possible and suitable to carry out a work of pure architectural art of the highest kind, untrammelled by mere utilitarianism.

If we have risen above the pagan idea (for such it essentially is) that the Deity can be pleased or propitiated by the erection of a costly temple, and if the majority of us are now disposed to smile at the childish nature of the ideas incorporated in mere ecclesiological symbolism, we seem, on the other hand, to have neglected, in our modern church-building, the broader and loftier symbolism of architectural art. For a building which is to be the meeting-place of human beings, with the object of concentrating their minds on the spiritual or higher life, and of expressing their trust in an Almighty Father, it surely ought to be felt that no architectural grandeur and solemnity can be too great ; not because such architectural grandeur is a special honour to the Deity ("as though He needed anything," to recur to St. Paul's phrase), but because it is an assistance to the elevation and harmonizing of our own minds, and a more adequate expression of the feelings which lead us to join in common worship. If people would only recognize it, we have just as much motive for building grand churches now as in the Middle Ages, only that the motive is a different and a more rational one. Our modern churches fail of greatness and impressiveness, for the most part, for two main reasons. The first

* In fact, St. Sophia was built at the instigation of, and from funds furnished by, a rapacious and unscrupulous tyrant, whose queen was the most infamously immoral woman of her time.

is that of false economy, the insane desire to have something fine and yet to do it cheap—two aims which are incompatible.* The result is an almost entire absence of churches on a great scale, and the prevalence even in smaller churches of thin and skimped construction and poor materials. As to the question of size, there are, of course, many small rural communities in which the erection of a great church would be both unnecessary and impossible, and in which the aim should rather be simplicity and quiet picturesqueness of design. But in our great cities we are sadly in want of great churches—churches which shall be impressive from the mere scale and grandeur of the interior. In a city, more especially, there is in a lofty and spacious church interior a sense of repose, of seclusion from the turmoil of the smaller interests of life, which no mere beauty of treatment on a smaller scale can supply the place of.

The second influence which is adverse to the production of really fine and impressive churches is the habit of building them in imitation Mediæval style. Until we get rid of the idea that a church must be Mediæval in its architectural character, and begin to treat such buildings freely and boldly, without formal regard to architectural precedent, it is impossible that they can have the highest architectural interest. Of late years improvements have no doubt been made in one or two respects. As already observed, we have shown a disposition to modify the three-aisled plan in accordance with what are supposed to be modern requirements, though, in regard to this point, it is possible that a little too much may have been made of it, and

* A clergyman once wrote to Pugin to ask for designs for a church, which must be very large, for the district was a very populous one; very beautiful, for they wished it to impress the people; and very cheap, as they had only a limited sum (which he named) to spend on it, and therefore he suggested that the tower and spire should be postponed for the present. Pugin's reply was characteristic: "Dear sir, say 30*s.* more, and have the tower and spire at once."

it is by no means a necessary conclusion that the three-aisled plan is unsuitable for modern worship ; * at all events it presents architectural and structural advantages which must not be under-estimated. We have to some extent got over the habit of cramming our churches all over with indifferent carved ornament, and are aiming more at breadth of effect and simplicity of treatment. But what we especially need, in addition to the question of large scale already referred to, is the habit of considering the architectural problem of a church from a new and modern point of view.

The Mediæval church plan, as derived from the cathedral, was specially characterized by the division of the total length of the church into a nave and choir, the latter for a separate order of worshippers, who were to be segregated from the laity. The long nave was to a great extent an ambulatory and an avenue for great festal processions. The long choir has descended to the modern church ; it disappeared in the Jacobean and Georgian era, being seen to be unnecessary for the Church of England ritual as constituted at the Reformation, and reappeared with the ecclesiological revival in the present century. But its reappearance is totally illogical. The majority of the persons who sit in that part of the church, and who constitute "the choir," are not now the clergy, and their separation from the rest of the congregation in a long chancel, sometimes with a screen at the entrance, is a mere piece of archæology. The position in the choir or "chancel" is not the best place for the singers, either in regard to being heard by the congregation or for leading (during some parts of the service) the singing of the congregation ; and the placing them in this position, as if they were a select or sacro-sanct body, is absurd for any other

* It must be remembered, of course, that the three-aisled plan is not essentially Mediæval ; it is descended from Greek and Roman plan.

reason; there is no excuse for it of any kind; it is a mere outward imitation of a mediæval arrangement under entirely altered circumstances. It is obvious that as soon as logic and common sense come to be applied to the planning of a church, as they are to the planning of any other type of building, the long chancel is doomed.

The three-aisled form of plan is certainly not the most suitable plan, or the plan that would naturally be adopted, for congregational worship, though it may be questioned whether its practical disadvantages are really so great as to outweigh, in all cases, the facility it affords for fine interior effect and for roofing. Supposing, however, that we decide against its retention on practical grounds, to what form of plan are we to turn?

FIG. 6.—A. SECTION OF THREE-AISLE PLAN.
B. SECTION OF "PASSAGE-AISLE" PLAN.

Reference has already been made to the plan, frequently adopted in recent churches, by which the church is built practically in one span, with narrow aisles at the side, used as passages only for access to the seats. In the way in which this is most commonly managed, the wall perpendicularly above the arcade, between the passage-aisles and the seats, is really the main exterior constructive wall of the church, the wall which defines the exterior of the passage-aisle being usually a mere screen wall masking the buttresses which are carried over this aisle (Fig. 6). The roof of the passage-aisle may either be

treated as a continuous lean-to roof, visible in the exterior design, or the roof may be masked, and kept flat behind a parapet crowning the screen wall. This is perhaps the better way, for the narrow slip of lean-to roof has a mean effect externally, and, moreover, it inevitably suggests the recollection of the ordinary side-aisle roof with its wider proportions, and gives the impression of being a mistake or a failure in proportion. The system occasionally adopted (as, for instance, by Street at All Saints, Clifton), of forming the aisle-roof into a series of gables butting against the main wall above the arcade (Fig. 7), is not one to be recommended as far as external effect is concerned, nor is it, in fact, architecturally truthful, as it conveys the idea of a series of side-chapels rather than a continuous aisle.

FIG. 7.—GABLED TREATMENT OF PASSAGE AISLE.

It may be questioned, however, whether this passage-aisle system is the best solution of the problem of suiting the church plan to modern congregational worship. It is rather an evasion than a facing of the problem. It appears to have been taken up with the object of preserving the traditional architectural effect of the three aisles with an arcade on each side of the central compartment, characteristic of the mediæval church, while avoiding the actual three-aisle plan. It cannot be said, after all, to be practically convenient, for the piers of the arcade are very much in the way of the access to the seats; and the pretence that it is a more economical form than the traditional three-aisle church, which I have heard urged in its favour, is an illusion. It is *less* economical than the traditional form, since, for two churches of the same width, the passage-aisle plan necessitates the same amount of walling, with no additional seat-room, and

with the additional cost of a much wider and heavier roof over the main span (see Fig. 6), which is not counterbalanced by the narrower roof of the passage-aisle, especially in consideration of the heavier buttressing required to support the larger roof.

On the whole, then, we must say that a modern-mediæval church treated on the passage-aisle principle can hardly be accepted as the best form for permanent adoption. If we are to develop a modern form of church specially suitable for congregational worship, and at the same time architecturally solemn and impressive, it must rather be by giving up our adherence to the mediæval form altogether, and arriving at something entirely different. In this respect there are a great many valuable suggestions to be obtained from the freely varied plans of Wren's churches, and more especially from St. Stephen's, Walbrook (Fig. 8), which might almost serve as a model for a modern church plan, as far as general idea is concerned; though there is no reason why we should adopt or be influenced by Wren's detail, or the detail employed in his churches, much of which was probably not his personal design. There is another very admirable suggestion embodied in Hawksmoor's plan of St. Mary Woolnoth (Fig. 8), where we have the Greek cross plan with a central area unimpeded by piers or columns. Both these are small churches, but the forms of plan employed in them are, in their main features, equally applicable to a building on a large scale; and their great merit is that they combine an open floor area with the opportunity for a grand

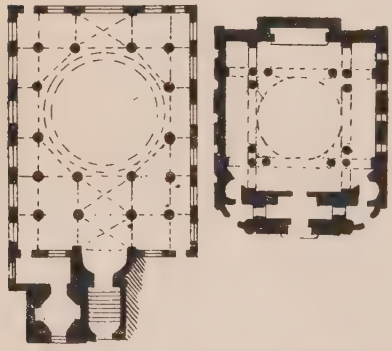


FIG. 8.—PLANS OF ST. STEPHEN'S, WALBROOK, AND ST. MARY WOOLNOTH.

and impressive architectural effect. And I feel convinced that the type of plan for the church of the future is to be looked for rather in the direction of the comparatively square form with a large central area—say a Greek cross with shallow arms, than in the elongated plan, either of the early basilica or of the Mediæval church.

It may be asked, are ecclesiastical history and associations to count for nothing? And the question is a perfectly reasonable one; but the answer to it depends to some extent upon considerations which are beyond the province of the architect, as such. If we are told to regard the creed and the ritual of the Church as unchangeably fixed, once for all, it would follow naturally enough that the ancient form of the building should be retained. This is the position professedly held by the Roman Catholic communion; "the Church never changes;" and hence it is only logical that the Catholics should prefer, as they often do, the early form of basilica church to the mediæval form. The ecclesiologists of the Anglican Communion are much less logical in their preference for the mediæval form of church, which after all only dates back to the middle period in the history of Christianity;* and while it thus fails to represent the earliest traditions of the Church, on the other hand it certainly does not represent the traditions or ritual of the Reformed Anglican Church, however people have got into the habit of thinking that it does. As before observed, it is essentially the plan of church for a privileged religious order, whose members carried on a service, within the sacred enclosure of the

* The late Mr. Street took upon himself to affirm that no architect who did not believe in the "Real Presence" in the Sacrament could possibly design a chancel in the proper spirit. As Street always designed chancels in the early mediæval style, one might reasonably have asked whether he regarded the institution of the Sacrament as dating from the thirteenth century, and whether he had forgotten that the actual institution by Christ Himself took place in the upper room of a house.

choir, in which the laity were not supposed to participate. It cannot be pretended, by any logical person, that such a plan is essentially suitable to a form of service in which the people take almost equal part with the minister, and in which the choristers, who ought really to be regarded as members of the congregation who are specially competent either to lead and assist the singing of the congregation, or to express the devotions of the latter through music too complicated for them to join in, and at the same time more beautiful and expressive than any ordinary congregational singing can be,* are partitioned off as if they were sacred personages; an arrangement exceedingly bad for them, and wholly at variance with the actual theory of the order of worship.

In short, unless we wish to put the sponge over the Reformation entirely, and go back to conventualism, the Mediæval plan of church is an anachronism in the present day, æsthetically at all events, if not practically. That it has been felt to be so in practical respects, has been made obvious by the fact of the formation of a joint Committee, not very long since, of architects and organists, to inquire into the whole subject of the best placing of the organ and choir in regard to musical effect and relation to the worshippers; a Committee which issued a Report condemning the chancel position of the choir, and the "organ chamber" adjoining it, as unsuitable on both musical and ritual considerations, and recommending a position on each side of the nave, as near the main body of worshippers as possible. Though this is a minor point, it is not an unimportant

* That is, the real spiritual function of the Anthem and of the formally composed "Service" in church music; and hence the bad taste of the habit which has obtained in some fashionable London churches, of the congregation remaining seated during the anthem, as if they were in a concert-room; a proceeding, to my mind, as discreditable to the congregation who indulge it as to the clergy who allow it to pass without a protest.

one ; and it may be observed that the more square and open form of church, which I have suggested as most suitable for modern worship, would also lend itself well to this proposed reform in the position of organ and choir.

While, however, we ought to take into account such practical considerations as these, in their bearing on church planning, let me not for a moment be supposed to recommend that church architecture should be regarded from a purely or mainly practical point of view. Far from it: the church is not either an auditorium or a mere shelter. It is a building consecrated to the contemplation of the higher and spiritual side of life, to the meeting of Christian souls to join in a common voice of prayer and praise, to fortify and encourage each other in the eternal fight of the higher against the lower nature. There surely could be no task that ought to be more inspiring to an architect, more calculated to lift him above the average aim and level of his art, than to have the privilege of designing a building which in its exterior and interior effect (the latter more especially) should not only harmonize with, but assist in promoting the effort of the human mind to rise above the material shows of life, and to nourish and strengthen its higher and holier aspirations. This is the opportunity, above all others, offered to the architect, to develop that quality of symbolism which we have spoken of as the essential element in the poetry of architecture. He is to provide a building, no doubt, which will be conveniently planned and arranged for ingress and egress, for seeing and hearing,* and which must be efficiently warmed and ventilated—

* The demand for acoustic qualities in a church, however, must not be pushed too far, for this reason among others, that the best acoustic conditions, in a large building, are incompatible with the noblest architectural proportion and effect ; this, at least, we know, however little we really know of acoustics ; and a church is not *primarily* a building for hearing in. In the case of a concert-room or a lecture-room we are justified in placing acoustic conditions (or what we believe to be such) before

we have outgrown the idea that our spiritual exaltation can be promoted by insanitary and uncomfortable material conditions; but above all he is to provide one which will suggest that which is eternal and universal rather than that which is temporary and special in architectural expression; which will symbolize the aspiration of the worshippers from the material to the spiritual, as well as their combined devotion to a central symbol of their faith. It may be asked, do not Church history, tradition, and association count for much in this solemnizing and symbolic effect of the building? They count for something, no doubt, and hence the feeling which many people have that they are more emphatically in a religious building, when they are in either an ancient or modern Mediæval church, than in a church built in any other form or style. But, as far as general plan is concerned, the symbolism of the Mediæval church is at variance with the modern theory of worship—we no longer look on at a service performed by a privileged hierarchical order for the benefit of those who do not join in it; and, as already observed, it is far better for the choir that they should seem what they are, a part of the congregation, than that they should be compelled, by the retention of the Mediæval plan, to appear to act a part which is not really within their function. If, however, those concerned

any purely architectural considerations, because satisfactory audition is the primary object in such a building. In a church, sermons are preached; but the sermon is not (or ought not to be) the primary object, and it would be putting the cart before the horse to spoil the building architecturally in order to render it easier for the preacher. Besides, there is always the question whether our "acoustic" design will really produce the intended result. "Do you know anything of acoustics?" said Henry Ward Beecher to the late Richard Hunt, when he consulted the latter as to a new church. "I know as much as any one does," was the answer. "And how much is that?" asked the minister. "Not the first d——d thing," was the reply of the outspoken architect; and he was probably right. In this case, it may be observed, the anxiety about the acoustic question was quite in order, since the object of the church proposed would not have been the worship of God, but the display of the oratory of Henry Ward Beecher.

in building a modern church are so strongly under the influence of the association of religious worship with the Mediæval type of church that they cannot feel satisfied apart from it, there is a resource to be found in the adoption of the three-aisled Mediæval church with the short, shallow chancel, as it is to be seen in some of the late Gothic churches of Norfolk and Suffolk (North Walsham, for instance, or the ruined church of Covehithe). These offer a type in which the general association of the Mediæval church would be retained, with a plan more in keeping with modern conditions than the now usual long-chancel plan.

But, after making all allowance for the effect of association, it is surely a nobler task to aim at abstract architectural impressiveness and symbolism, to endeavour to build up a new association with a form of church architecture directly arising out of our present feelings and our present requirements, than to meditate for ever under the shadow of Mediævalism. And this leads us to the question—is there, or has there ever been, such a thing as a "church style" of architecture, distinguishing churches from other contemporary buildings? During the fervour of the Mediæval revival it was one of the watchwords of the more ardent revivalists that "Gothic was *not* a church style;" the reason this view was emphasized being that they wished to see Gothic revived as the general architecture of the country, for all purposes. On the whole, they were right; the churches were certainly the buildings in which alone Gothic architecture received its highest development, but the same style was used for whatever other buildings were erected at the same time as the churches; and this is about the distinction which has existed between sacred and secular architecture in most temple-building countries: the temples were the largest and most important buildings; in some cases, as in Egypt, they almost summed up the architecture of the country as far as we know it (for one

cannot call pyramids architecture); and in Greece, where the principal remains are temples, there is nevertheless no difference in style between the Parthenon and the Acropolis gateway. The Romans, with their greater variety of buildings, seem to have come rather nearer than any other nation to having a distinctive style for the temple; at all events, the pediment was supposed, until a late period, to be a feature special to the abode of the god, and the permission accorded to Augustus to build his house with a pediment was the subject of comment, as being a kind of Divine honour. But, after all, the order and the details were the same, whether in temple, triumphal arch, or thermæ. The notion of a "church style" is, in fact, a modern one, which arose with the Mediæval revival, in spite of the opposition of those who best understood the spirit of Mediæval architecture.

But if there never has been such a thing as a church style in the past, the question may still be asked—ought there to be one? Is it desirable that we should endeavour to select any particular type of detail or architectural treatment and mark it out as specially suitable for a church, in order to assist in building up a kind of special association in church architecture? It may be questioned whether it would be possible to get any general concurrence in regard to such a style; the general concurrence in favour of Mediæval architecture for churches, which has existed during the last generation, was a concurrence in adopting a style already existing, which is a very different thing from concurrence in developing a new one. But the fact is, that while a church always should look like a church, and always may be made to do so, the difference does not reside so much in the adoption of any one style as in the treatment of the building in that style. A difference in plan and general design may make all the difference between a building looking like a church or not, even with the same class of detail. A rather interesting

example of this, which was brought specially under my own notice, is illustrated in Figs. 9 and 10. The former represents the interior, as executed, of a Roman Catholic church designed

FIG. 9.—CHURCH AS BUILT (MR. GOLDIE).

by a well-known architect, to which I had objected (in print), when the drawing was publicly exhibited, that it looked more like a concert-room than a church; at all events, that it might

be either. To my gratification, I received a courteous letter from the architect, saying that he by no means differed from me; that the plan of the church had been unavoidably altered

FIG. 10.—THE SAME CHURCH (SEE FIG. 9) AS ORIGINALLY DESIGNED.

from the original design, in consequence of difficulties about the site, which he explained to me, and he sent me the original plan and design (Fig. 10) to show what it should have been. The details are similar in both designs, in general character;

the difference lies in the plan and architectural conception. In the executed design we have only an oblong apartment treated the same way all along. In the original design we have the series of side chapels first, giving depth of shadow effect on each side of the nave, and then the expansion of the eastern portion of the nave into the form of an octagon, roofed by a dome. This treatment makes all the difference; in spite of what some would think the secular character of the detail, the design in this form can be taken for nothing but a church; in no other type of building could that arrangement of plan and section, so as to produce an effect of climax as we reach the upper end of the interior, be either requisite or suitable; the comparison of the two plans is a most instructive example as to the difference between the utilitarian and the architecturally expressive treatment of a church interior.

But though it has been observed that the church-like character of a building is determined rather by the general scheme of the design than by the character of the detail, yet I cannot but think that the purpose of the building, and the impression it ought to make on the mind, should influence us very much in the design of its detail; not in the direction of following one style of detail rather than another, under the impression that the one is more "ecclesiastical" in character than the other, but in the endeavour after severity of character and symbolical significance in the detail. And for this reason it may be said that the kind of decorative detail generally found with Renaissance architecture is essentially unsuitable to a religious building, because it lacks severity and seriousness of purpose. It is not so much a question of association in this case; considering the number of Roman Catholic churches which have been erected, on the Continent especially, in even the most florid Renaissance manner, many thousands of people must

have as much religious association with this style of architecture as others have with Gothic. It is that the style of detail which consists of unreal conventionalities, of sham panelling, of useless brackets, of carved floral ornament clever in execution but destitute of real design, is essentially a style devoid of the serious and monumental character proper to a religious building. Take St. Paul's as an example; there is an instance of a grand church interior spoiled more or less by bad and commonplace ornamental detail.* So with Wren's admirably planned churches, with all their interesting variety in arrangement and general conception; the taint of secularity is somehow over them, not because they have not pointed arches and traceried windows, but because they are full of plaster imitation of vaulting, of ill-considered commonplaces of ornament, which detract fatally from the seriousness and gravity of architectural character proper to a place of worship. In short, what we require to aim at in church architecture is, not the adoption of any particular style supposed to be by association "ecclesiastical," but solid and monumental character in the construction, and grandeur and severity of style in

* I cannot refer to the interior of St. Paul's without expressing the strongest opinion as to the essentially unarchitectural character of the modern reredos erected a few years ago. That it is gewgaw in appearance, and decorated with poor and commonplace sculpture, are in themselves serious objections, but these are minor matters in comparison with the flagrant manner in which the architectural design of the building has been interfered with by an erection which has not the slightest relation to the details of the original architecture or to the lines of the plan. It is inconceivable to me how any man professing to be an architect can have committed such a solecism as to interpose a reredos curved on plan, in front of a semicircular end, leaving between the apse and the back of the reredos an entirely shapeless area, which is just so much space cut off from the church plan and from its apparent length, and thrown to waste. Not the slightest attempt is made, either, to connect the details of the reredos with those of the church, the cornice of the reredos cutting into the middle of one of the fluted pilasters, as if Wren's architecture were of no consequence at all. One can hardly see the thing without wishing to plant a twelve-pounder at the choir gates and batter it down.

all the detail, with the absolute rejection of every ornament which is merely superficial, pretty, or unmeaning, and especially of the whole class of merely imitative ornament. If we are to confine ourselves to the reproduction of past styles, there is no doubt that Gothic is, in one sense, a more ecclesiastical style than Renaissance, inasmuch as it is characterized by a more severe and restrained manner in its decorative detail. But there is no reason why a church design based on Renaissance types in regard to plan, section, and general proportion, should not be treated with the same nobility and severity of detail as we find in early Gothic. It is to a grand and appropriate symbolism in general design, and a severe and thoughtful treatment of detail, that we must look in order to evolve a modern church architecture in harmony at once with our practical requirements and our spiritual aspirations; and not to the employment of any special style supposed by habit and association to be "ecclesiastical."

Having thus far considered in the abstract the possible future development of church architecture, and the direction which it should take, let us see what we can learn from what has been already done in recent times. Confining our attention first to the larger churches, which are either professedly cathedrals or which may architecturally be ranked with cathedrals, we find that in our own country and in connection with our national church the Mediæval feeling is still prevalent; it is the Roman Catholic community alone which has shown any leaning towards the classic style for large churches. In the Oratory at Brompton, which in point of scale may take rank as a cathedral of the second order, we have an example of the Renaissance type of domed church, with some original features in detail (chiefly in the exterior treatment of the dome), but which on the whole presents nothing but the ordinary materials of Renaissance

convention. The new cathedral at Westminster, if it ever gets completed, will probably present something with more vitality and originality in it than this; as far as one can gather the intention in regard to a design about which there seems to be a great reluctance to give any definite information, it would seem that this is to be a church which will combine something of the general form of Byzantine architecture with Renaissance treatment in detail. It is to be hoped that a severity of style will be arrived at, and that the completed work will not present any of that ill-considered exuberance of detail which is the bane of so many existing Roman Catholic churches of the Renaissance type. In connection with our national Church, the one modern cathedral is the half-completed one at Truro, a frankly Mediæval work both in plan and style, though the exterior presents a certain degree of modern character arising out of the special handling of the style by its architect, who in this and other churches has generally contrived to stamp his own individuality on the treatment of the exterior. In the interior, on the other hand, it might be said that Truro is almost more Mediæval than a genuine Mediæval church; in fact, but for the new look of everything, we might almost imagine that we were in a thirteenth-century cathedral. In this respect Truro is in one sense a valuable study for the young architect. If it is to be our object to reproduce the Mediæval cathedral, whatever is worth doing is worth doing well, and no modern building is so thoroughly imbued with the Mediæval spirit as this interior, which in this respect surpasses any achievement of the same kind by either Scott or Street. And even if we think, as I do, that the reproduction of the Mediæval cathedral in these days is a mistake, there is this particular benefit to be gained by young architects from a study of the interior of Truro, that recognizing, as they must recognize, its remarkable truth to the Mediæval

model, they should ask themselves, in what special characteristics and for what special reasons is it that this interior recalls and revives so remarkably the spirit of Mediæval architecture? How does it differ from modern Mediæval churches which are less successful in this respect? And a consideration of these points will at least be likely to lead the student to a recognition of some characteristics of Mediæval architecture which he may have failed fully to grasp, and which are here emphasized for him in a kind of object-lesson.

The competition a few years ago for the proposed cathedral at Liverpool, though it came to nothing, had the effect of illustrating what some leading architects would have built if they had had the opportunity. Of the three who competed, Messrs. Bodley and Garner produced a design which was purely a reproduction of Mediæval architecture in a rather weak manner, and without an original point in it. Mr. Brooks's was a Mediæval design; but Mr. Brooks, like Mr. Pearson in his exteriors, puts an impress of his own on revived Gothic, and his design, though perhaps a Mediæval precedent might have been found for almost every detail in it, could never have been mistaken for a Mediæval building. A defect in the design was, I think, the unduly lofty proportion of the western towers and spires, which were out of scale with the rest of the design and dwarfed it, in the drawing at all events. Three interesting points in regard to the genesis of this design I had from the architect himself. The main lines of the plan (Fig. 11) were drawn out in the first instance by hand on a paper ruled in large squares, the nave forming the width of two squares, the corresponding bays in the aisles forming one square each, and all the outline of the plan was defined on the lines sketched on these squares, and was never altered from the first sketch. Secondly, the semicircular aisle round the apsidal east end was taken as half the width of the

main side aisles, which were divided by a pier at the east end to give a start to the eastern aisle, which was thus reduced to much better and more manageable proportions than if the aisle had been carried round its full width. Thirdly, special attention was given to the important point of designing the building so as to realize the scale of a great cathedral ; and with this view, at an early period in the working out of the design, a small portion

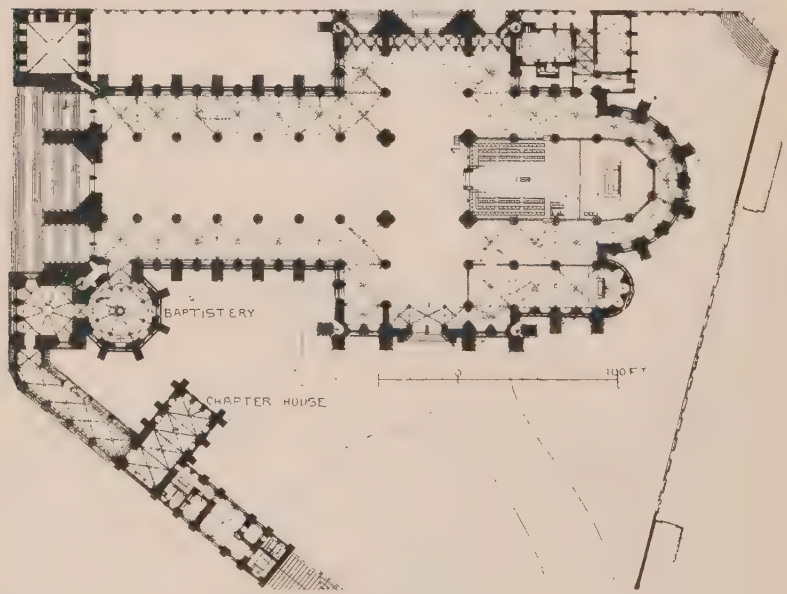


FIG. 11.—MR. BROOKS'S PLAN FOR LIVERPOOL CATHEDRAL.

of it, at the junction (I think) of the transept with the choir, was carefully set up in perspective on a rather large scale, to see if it conveyed the impression of the intended scale of the building. The result was satisfactory in this sense, and determined the treatment of the whole design. This is a most important point. It is possible to design a large cathedral which will only look like an ordinary church magnified, and no more fatal mistake could be made.

Mr. Emerson's design in the same competition is the only modern English design for a cathedral which suggests a new departure in plan and treatment (Fig. 12). It substitutes to

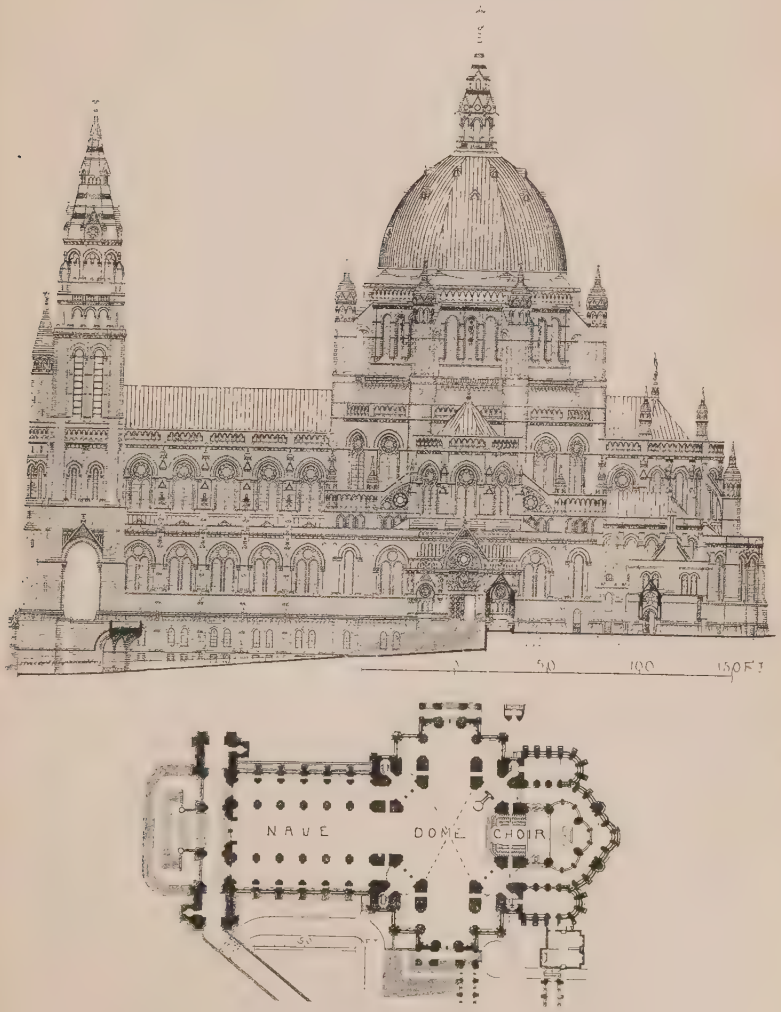


FIG. 12.—MR. EMERSON'S DESIGN FOR LIVERPOOL CATHEDRAL.

some extent the principle of the wide central area for that of the nave and transepts with the narrow crossing, which, as Fergusson truly remarked, is the weak point of the typical Mediæval cathedral plan. A rather short nave is retained, perhaps as a partial concession to ecclesiastical precedent, but the octagonal area under the dome is the real nave, and the domical roofing is carried out as an intersecting vault in a form suggested by the Saracenic domes, with which the architect had probably been familiar in India. This design gained the premium in the competition, and I think rightly, as the only attempt to treat a modern cathedral in a novel manner, suited to the feeling and requirements of the modern service, though it must be admitted that the detail left room for improvement and refining, which it might, however, have received in execution.

At the time of this competition an exceedingly clever suggestion was made in the shape of a design by a Liverpool architect, Mr. James Hay, who had not been invited to compete, but whose volunteered design was, if I remember right, considered of sufficient interest to be exhibited along with the others. It is of interest in this sense, that it is a practical attempt to grapple with the problem of the assimilation of Gothic and Classic forms. The intended site for the cathedral was at the back of Elmes's celebrated Classic structure, St. George's Hall, and was in close contiguity also to the group of buildings consisting of the Free Library, circular Reading-room, and Art Gallery, all in Classic style, and forming a complete architectural group. Mr. Hay's view was that, while a cathedral ought to preserve some reminiscence of the Mediæval style, which was the original form of cathedral in this country, the building in this particular instance ought to harmonize architecturally, in its general lines, with the important Classic

buildings by which it would be almost surrounded, and that a building on Gothic lines would be a disturbing and discordant element in the group. Accordingly, he made the design, of which an illustration is here given (Fig. 13), as a suggestion of the manner in which this blending of the two elements might be achieved. Without exactly saying that one would have

FIG. 13.—MR. HAY'S DESIGN FOR LIVERPOOL CATHEDRAL.

wished to see it carried out, one must admit that it is a very clever combination, and contains a suggestion as to the possible union of elements derived from Gothic and Classic architecture which is worth taking note of.

The most important new cathedral recently commenced in Europe, that at Berlin, designed by Professor Raschdorff, is a piece of merely academical Renaissance architecture, and that of

a very poor and commonplace type (Fig. 14). The foundation stone of this building was laid about two years ago. It exhibits all the faults common to this type of architecture; the use of a large Order conveying the idea of a one-story structure, while behind this the wall, cornices, and openings are treated as if in

FIG. 14.—NEW CATHEDRAL, BERLIN (PROFESSOR RASCHDORFF).

two stories, and the illogical packing together of conventional details which have no constructional or architectonic relation either to each other or to the whole. The central dome appears to rise out of the centre of a flat-roofed, cubical mass of building, without anything to visibly support or lead up to it. The details

(Fig. 15) show neither the slightest architectural invention, nor even a perception of refinement and grace of proportion in the use of conventional features. The worst point about the whole design, perhaps, is the treatment of the termination of the dome, which is made to appear to terminate in a flat, with a balustrade round it, on the centre of which stands a large lantern—a construction which would be impossible except by the employment of iron girders across the opening of the dome to carry the lantern. This would be a very unmonumental way of building; but the real fact is even worse than that, for the constructional dome is in reality to be carried up to the base of the lantern, but its lines are masked by the balustrade, as in the accompanying section, so that the balustrade is a mere ornamental screen stuck on to the extrados of the dome, to give the impression to the eye of a construction which does not and could not exist. The architect was selected and commissioned by the emperor, and if this is the best that Germany could furnish in the way of a design for a great metropolitan cathedral, it is

FIG. 15.—DETAIL, BERLIN CATHEDRAL.

FIG. 16.
SECTION OF DOME AND LANTERN, BERLIN CATHEDRAL DESIGN.

a sad indication of the low state of architectural genius and architectural perception in that country. The plan of the building (Fig. 17), on the other hand, is of some interest, as it shows a special treatment of a cathedral plan in reference to a special object. The building was not to be a cathedral pure and simple; it was to include a cathedral church for general worship, a memorial church or mausoleum of the royal family of the Hohenzollern line, and a baptistery church for parochial use. In the plan, A is the cathedral, B the mausoleum, and C the baptistery. It will be seen that, contrary to all precedent

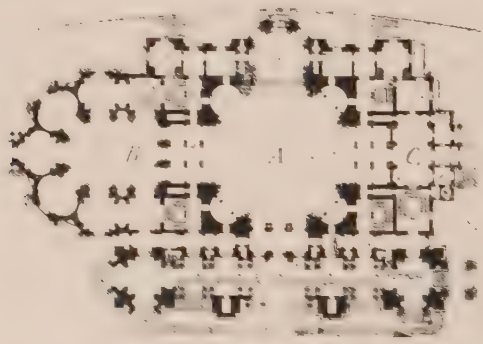


FIG. 17.—PLAN, BERLIN CATHEDRAL.

in church planning, the longer axis of the cathedral interior is at right angles to the long side of the exterior design, the main entrance to the cathedral being thus on the flank instead of at the end of the building. The interior, in fact, has two axes at right angles to each other, one or other of which may be the principal axis, according to the purpose for which the building is being used. It may be presumed that on the occasion of a royal funeral procession to the mausoleum chapel, the *cortége* would enter at the baptistery door, and cross the baptistery church and the cathedral on the central line leading up to the

mausoleum. The whole plan, as far as that goes, is really a very clever and effective one for its purpose. The plan of the cathedral church shows the wide central area which is most fitted for modern worship, and the appearance of a flank entrance externally is no objection in view of the special reason for this arrangement presented by the special conditions of the building. The misfortune is that a plan presenting such fine suggestions for effect should have been treated architecturally in so poor and commonplace a manner.

Some of the French churches of the modern period—not the most recent examples, but some important ones built by eminent architects within the last generation—are worth attention as being in more than one sense instructive and suggestive. As far as modern Gothic churches are concerned it may be said that in France, the original cradle of the style, the spirit of Gothic architecture is absolutely dead. The churches designed by French architects in this style, or professing to be in this style, are without exception, as far as I have seen, hard and wiry in detail, and totally destitute of any of the real spirit of the style which they profess to revive. The tendencies in modern French church architecture are towards a modernized Byzantine type of architecture, or a Renaissance type; the Byzantine type having quite recently shown signs of gradually pushing out the Renaissance. The great church on the hill of Montmartre, begun about twenty years ago and not yet completed, belongs to the Byzantine type, though in a very modernized fashion as regards the detail. This is an effective building, owing to its generally fine outline and composition, its massive and monumental structure, and its grand situation. But in the French neo-Byzantine or neo-Romanesque churches (for both types are to be found) there is an element of incongruity, the attempt to use forms derived from ancient architecture without any real feeling

for the character of detail belonging to the orginal styles. The result is something which is cold, hard, and formal, in which there is neither modern grace and finish nor ancient picturesque-

FIG. 18.—BASILICA AT TOURS (M. LALOUX).

ness. This is aptly illustrated in M. Laloux' Basilica at Tours (Fig. 18); the details are heavy and ungraceful, from a modern point of view, and yet they do not serve to recall any of the effect of the ancient style. One has only to remember

the totally different kind of effect obtained by Richardson, the American architect, in the treatment of details founded on Byzantine work, to recognize that the defect is really to be traced to qualities inherent in modern French architectural taste and training, which is opposed to the evolution of any real sympathy with the character of early Christian architecture. In Vaudremer's quasi-Romanesque church of Nôtre Dame at Auteuil (Fig. 19), however, there is a simplicity of detail, an absence of the usually too prominent French "cleverness" in church architecture of this type, which deserves recognition; and moreover the design for the campanile, whether we think it altogether admirable or not, is unquestionably original, though its junction with the square tower beneath it is managed in rather a crude manner.

FIG. 19.—CHURCH AT AUTEUIL (VAUDREMER).

The plan of the cathedral at Marseilles, by Vaudoyer (Fig. 20), commenced about 1860, is interesting as an example of the application of what has been called the "passage-aisle" principle of planning to a cathedral; the wide expansion of the plan as we emerge from the nave is a fine point, and it will be observed that, by adopting the narrow aisle, the architect is enabled to carry the aisle round the *chevet* at the same width,

instead of adopting Mr. Brooks's plan of halving its width at this point. The façade, with its very North-Italian appearance (as indeed, though on French soil, it is not very far from that

FIG 20.—MARSEILLES CATHEDRAL (VAUDOYER).

part of Europe), is a pleasing and harmonious composition in itself, and the effect of the series of statues in niches, ranging with the windows of the towers and binding the whole composition together, is very good; there is a satisfactory breadth and

simplicity about the design, too; but unfortunately it has the fatal defect of want of scale. The simplicity has been over-

FIG. 21.—"LA TRINITÉ," PARIS (BALLU).

done; the large scale of the arches in the upper stage of the towers especially, and the naive treatment of this portion, dwarf

the scale, and it gives at first glance the impression merely of a tolerably large parish church, instead of suggesting a cathedral front. In this respect it may be instructively compared with the front of Ballu's well-known church of "La Trinité" at Paris (Fig. 21), which strikingly illustrates the value of multiplicity of parts in giving scale to a building. This fine façade shows the modern French architect at his best in the application of Renaissance style to church architecture, and the student cannot but recognize how infinitely superior is this design to the conventional classic banalities of the Berlin cathedral design. "La Trinité" is, in fact, a Gothic design framed out of Renaissance details; each stage in the design is treated separately; there is no thrusting of Orders through two stories; even the incident of indicating the slope of the roof, on each side of the tower, by the raking wall and balustrade, reminds one of a Gothic west front. Another modern French Renaissance church, less familiarly known to English students, is Baltard's St. Augustin (Fig. 22), at the end of the Boulevard Malesherbes. This is a church very cleverly designed for an irregularly shaped site; it fills up the ground between two diverging streets, the site expanding towards what is ritualistically the "east end" (though it does not look eastward). It will be seen in the view how the lower portion of the nave walls follows the line of the streets, widening outwards, and how well they are connected with the

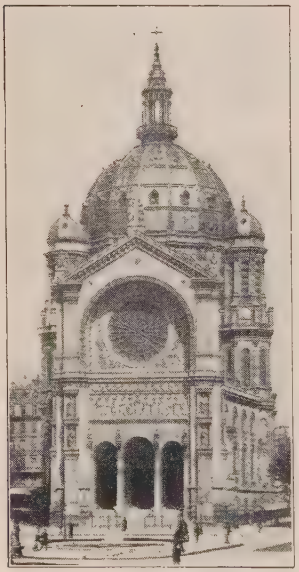


FIG. 22.—ST. AUGUSTIN, PARIS (BALTARD).

central feature by the two turrets which flank and lead up to the dome. Internally the treatment is striking and unexpected; an internal Order is seen attached to the wall in the shape of pilasters for one or two bays; it then leaves the wall and becomes a colonnade following the line parallel with the central axis of the nave, the outer walls expanding behind it, following the boundaries of the site. Unfortunately the details of the roof are weak and unsatisfactory, but in many ways this is a remarkable

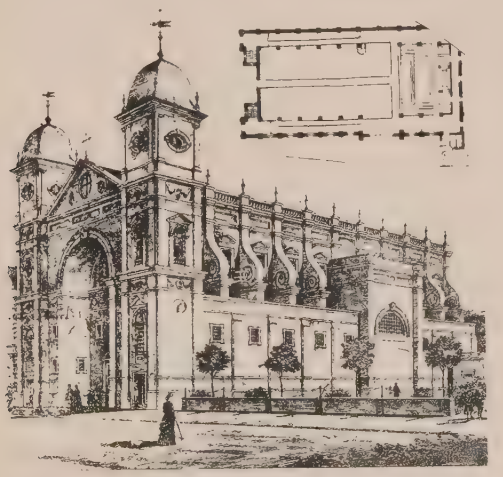


FIG. 23.—CLASSIC CHURCH ON MEDIÆVAL LINES (SEDDING).

church design, and is worth the attention of those who are looking out for new ideas in church architecture.

In England—except, as before observed, in Roman Catholic churches—we have had no such experiments with Renaissance architecture for modern churches of recent date. One very interesting one was made, on paper only, by the late J. D. Sedding, in a design for St. Dyfrig's, Cardiff (Fig. 23). In this the treatment of the towers in the western façade is certainly very poor; but the application of a Classic form for the buttresses

at the side is very clever (it is perhaps suggested by the scroll buttresses at Sta. Maria della Salute); and the interior, as a modern application of the ancient basilica form of church, but with a curved ceiling instead of a flat one, was a not unsuitable design for a modern church. Unfortunately this proposal was met by an absolute refusal on the part of the committee to adopt a Classic design, and a Mediæval one was substituted. The same architect's design for the interior of the Church of the Holy Redeemer at Clerkenwell (Fig. 24) is a still more successful application of classical elements to a church interior, and, in fact, is so original and picturesque in treatment that it hardly suggests itself to us as "Classic"—a word with which we generally associate the employment of the Order in the orthodox and generally recognized form. Here the peculiar treatment of the columns, with their rings of darker-coloured stone at intervals, suggests something quite different from the usual classic order. In spite of the horizontal line of the entablature, the general effect produced is much more allied to Mediæval than to Renaissance associations; and the treatment of the plan, which gradually widens, in a most natural and unaffected manner, as we advance into the church, is admirably effective, and such as is specially suited to a church interior and to no other class of building. Altogether, we may regard this as one of the best modern suggestions for the treatment of a small church.

In the main, however, a survey of modern English churches of recent date will show our architects still for the most part under the influence of the Mediæval revival, though, in the midst of this cult, "some modern touches here and there" will arrest attention. One may group them roughly under four heads: churches with spires; churches with towers; churches without either feature, but, in the main, of conservative Gothic type; and churches with special features or characteristics

FIG. 24.—CHURCH OF THE HOLY REDEEMER, CLERKENWELL (THE LATE J. D. SEDDING).

which put them out of the usual classification. As a general rule, it will be found that the spire church, in recent years, has become almost entirely the property of the ultra-conservative Gothic revivalist of the old school, and the occurrence of a lofty stone spire in a church design of the present day will generally (I will not say always) be found to be the accompaniment of a weak and merely imitative revival of orthodox

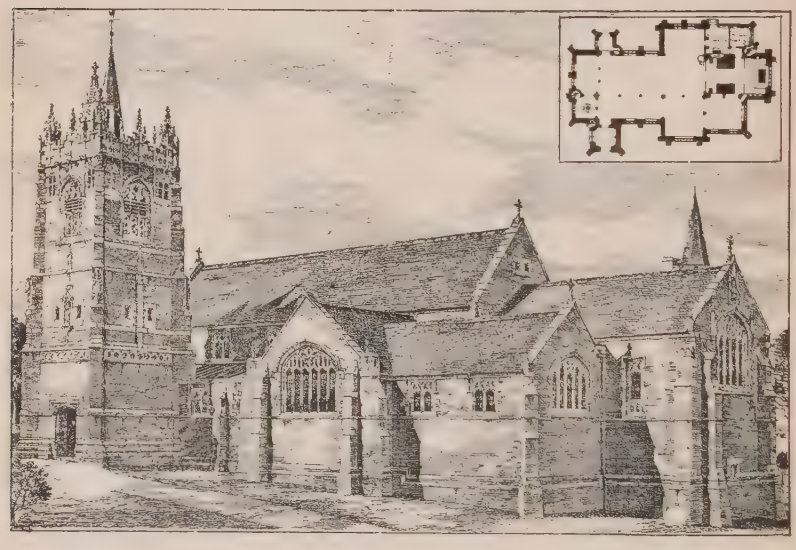


FIG. 25.—CHURCH, STANSTEAD-MONTFITCHET (MR. CARÖE).

Gothic features and details.* The reason is partly that our more original church architects are anxious to try some new treatment of the finish of the tower; but the more important influence in the demission of the spire probably is that we have begun to find out that massiveness and solidity of construction

* I do not include among spire churches those which have merely a small timber spirelet as a finish to a masonry tower; only those in which the spire is a solid masonry structure of equal importance with the tower.

and breadth of scale in detail are more important elements in realizing the spirit of Mediæval architecture than a mere cheap imitation of its prominent features, and that the money which would have to be expended on a spire is much better laid out on a solid and monumental structure in the body of the church; and this movement in favour of solidity of style and structure evidently influences the design of most of the towers

FIG. 26.—TOWER, ROSSETT (MESSRS. DOUGLAS AND FORDHAM).

in the cases where that feature is a prominent element in the design. We see this well exemplified in such towers as those by Mr. Caröe at Stanstead-Montfitchet (Fig. 25), by Mr. Leonard Stokes at Maidenhead, and by Messrs. Douglas and Fordham at Rossett, etc. (Fig. 26). In the last-named example a certain special character is given by the development of the buttresses in one direction only—that of the loftier arches

opening on nave and chancel, an incident which gives an additional effect of calculated sturdiness to the structure.

The necessity for a tower at all to a modern church has been called in question, inasmuch as the practical excuse for a tower in connection with a church is as a place to hang bells in to mark the time of service and call the people thereto; so that in Italy the tower is actually called the *campanile*, the "bell-place," and in this respect the tower originally was to the Christian church what the minaret was to the mosque—the place whence the call to prayer was sounded. To this must be added the superstitions which gradually clustered around bells, according to which their sounds were regarded as efficacious to drive away evil spirits, to disperse storms, etc. It is urged that this superstition as to the value of bells having vanished, and the general possession in households of some kind of reliable timekeeper rendering them unnecessary as a signal of the approach of the hour of worship, the tower which was built to hold them has become superfluous. There is the excuse of the clock; but a clock does not necessarily require a large and monumental tower, nor is the church necessarily the only or the most suitable place for fixing a public clock. All this is true; but something must be allowed for association. A tower has been so long associated in our minds with the idea of a church, that there seems something wanting without it; and though a peal of bells may be a nuisance in a town—at least to some people who live too close to it—in the country it is not so, and the sound of a large peal of swinging bells is not only pleasing from old association, it is a sound pleasing in itself when not too near, a kind of wild music reducible to no rule, and representing an effect peculiar to itself, and which nothing else can precisely replace. I am decidedly of opinion, therefore, that bell-music, in country churches at all events, is a thing worth keeping up;

and with it comes the *raison d'être* for the tower, which, moreover, in an extended landscape, is both an agreeable and useful feature as a landmark. The objection to bells in cities is a valid one, and therefore the church tower becomes in a city more of a merely ornamental addition for architectural effect, which may be valuable or not architecturally, according to the position of the church. The church without tower or spire, then, seems essentially a town form. Any country church without a tower seems to want something; whereas a town church may have only opportunity for a single western façade and be otherwise built up, or it may be in a position in which a tower cannot be seen to advantage close at hand, and cannot be seen at all further off. There are cases, therefore, where the omission of a tower is a positive advantage to a city church, architecturally speaking; but this can hardly ever be said to be the case on a country site.

Where the tower, when there is one, should be placed, is a matter of some importance in regard both to convenience and architectural expression. It may be placed either in a side position near the west end, in a side position near the east end, centrally at the west end, or (if there is a transept) over the crossing. In the first and third positions the lower portion of it should form an entrance porch, in order to give the tower a reason and make it mark something in the plan; or in the case of the central west-end position the lower portion may be made the baptistery. For the third position mentioned, at the side towards the east end, it is more difficult to find an adequate motive on the plan, but there are occasions when the architectural motive for this position is a very strong one; that is, when a church is built on ground sloping rapidly towards the east. Every consideration of architectural effect then impels us to place the tower as far as possible towards the lower level of the

site, so as to get for it all the effect of height, all the vertical line, that is possible, and this consideration would justify its being placed there even if the plan afforded no special reason for emphasis at that point. As to the western position, that in the centre of the west front, which gives a design in which dignity and symmetry predominate, is most suitable for a large church ; the side position is more suitable for a smaller building, in which picturesque rather than symmetrical effect is aimed at. The central position over the crossing is suitable either for a very large church or for a small one with one span only for nave and transept. In a three-aisled church of comparatively small size the central tower looks too much like an attempt to give the building a cathedral-like dignity beyond what its scale will bear, and the tower must either be a poor and light one or the crossing-piers must be so large as to inconveniently block the floor. In a very large church this is different. There may be floor space enough to spare for adequate piers, and the central position of the tower gives no doubt a greater dignity to a church on a large scale than any other position, though there is always the slight disadvantage that you cannot bring the line of the tower visibly down to the ground. In the case of a small church without aisles there is no structural objection to a central tower, which can then be made as massive, comparatively speaking, as one pleases, without causing any inconvenience on plan, with the advantage also of being able to bring the exterior angle lines down to the ground if desired ; and a small but solid-looking tower thus constructed may avail to give a look of dignity and breadth to a really small church (Fig. 27). In the case of the tower standing free by the side or at the west end of the church, and seen (on three sides at least) from the ground line, a great part of the effect depends upon the manner in which decorative features and windows are grouped

and distributed. It may be said that there are really only two effective principles on which to design a tower in this respect, either to treat it as a richly decorated erection from the base, or to treat it as an almost entirely plain erection carrying a decorative upper stage. A typical Somersetshire church tower, or a design like the Victoria tower, produces effect from general richness of treatment. A tower carried up to a considerable height

FIG. 27.—SLINDEN CHURCH (MR. BASIL CHAMPNEYS).

with a sternly plain character, and carrying at the top a freely enriched stage, is nearly always effective by contrast; and, moreover, if it is a tower to carry bells, there is a logical meaning in this treatment which is satisfying to the mind, the plain portion of the walls being the necessary support to lift the belfry stage to a lofty position in the air. Nothing is more feeble than a tower which has no decided aim, as it were, and especially one which is divided in half, as too many modern towers are, by a plain portion near the base and an equal height

of decorative treatment above. The effect of both portions, the plain and the enriched, is nearly nullified by the want of point and intention which such a system of design shows.*

Before quitting the subject of towers, it may be suggested that the device common on Italian soil, and met with in a few cases in English Mediæval examples, of building the tower entirely disengaged from the church, is worth the attention

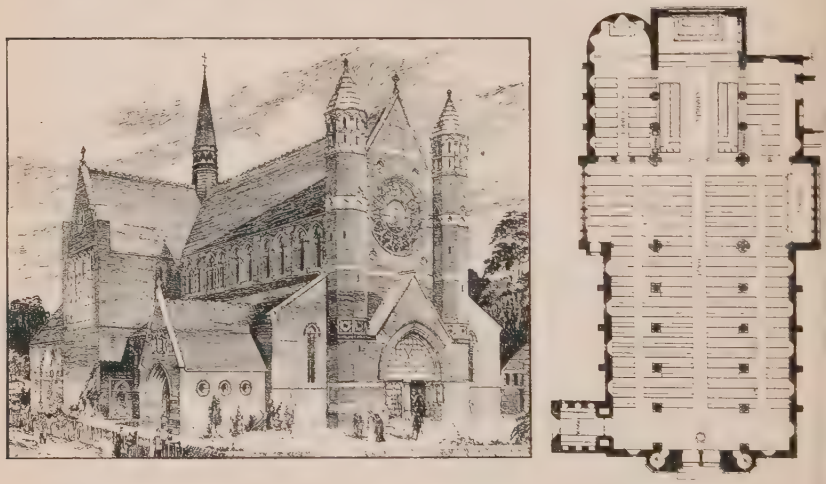


FIG. 28.—ST. ANDREW'S, WILLESDEN (MR. JAMES BROOKS).

of modern architects and church builders. It is an arrangement susceptible of very fine architectural effect, admitting of the tower being treated as a complete all-round design, and its connection with the church by an arcade or gallery may afford all the communication necessary for convenience without interfering with the complete design of the tower, and even adding a new point in the architectural effect and composition.

* To give an actual instance of this, from a modern building, would be what is called "invidious"; most of my architectural readers will be able to supply instances from their own observation.

The church without tower has generally been found to require something in the way of flanking turrets to give to it something of the dignity and importance, as well as distinctive character, which the tower would otherwise furnish. The illustrations of St. Andrew's, Willesden, by Mr. Brooks (Fig. 28), and St. George's, Worcester, by Mr. Aston Webb (Fig. 29), are good and more or less typical examples of this treatment of the west front, and in the latter a very bold effect has been produced by the treatment of the turrets as if they were solid abutments to the deeply recessed arch between them, which covers the whole depth of the entrance porch. Mr. Brooks's churches have a special style of their own, easily appreciated by the eye, though difficult to define in words; they are the evolution of an attempt to produce solidly built churches at a comparatively low cost. Hence the extensive employment of brick, and the development of a manner specially suitable to brick—broad plain wall surfaces and little or no carved ornament. The architectural interest, as well as the appearance of solidity and

FIG. 29.—ST. GEORGE'S, WORCESTER (MR. ASTON WEBB).

monumental construction, is a good deal assisted by the manner in which the wall planes of different portions of the structure are run into each other without breaks, as is seen in the way in which the west porch of St. Andrew's is developed out of one of the faces of the octagon turrets, and the gabled buttresses which support the gable of the transept rise without a break from the wall-plane below them. This is a method of design often imitated now, but Mr. Brooks invented it for modern churches, and his manner of building has been slowly developed through a long series of examples until it may be said almost to merit the name of a style. The late Mr. Sedding's well-known front to Holy Trinity Church, Sloane Street, is another and rather more abnormal example of the exterior treatment of the towerless church; it is an effective street front; it would be out of place in a rural site. Mr. Sedding may be said to have been in search of a style, which he would perhaps have perfected had he lived longer. The front of Holy Trinity is one of his best and most connected designs, though here it may be doubted whether the segmental arches over the doorways and the spandrel decoration in them seem quite to belong to the rest of the design. It may be observed that both in this and Mr. Brooks's design the sloping lines of the aisle roofs are retained in the west front. It is surprising that in large churches of this type the attempt has not been more often made to mask this slope of the aisle roof; there can be no question that it makes a very weak line for a front of any architectural importance. For a rural church on a small scale there is no objection to it.

The interiors of Mr. Brooks's Church of the Good Shepherd (Fig. 30) and of Mr. Stokes's St. Clare's, Sefton Park (Fig. 31) are good examples of some of the suggestions which have been made in recent times towards a novelty of treatment of Gothic

materials in the interior of a church. Mr. Brooks's pier without caps or any defined impost, with the groin-ribs of the vaulting

FIG. 30.—CHURCH OF THE GOOD SHEPHERD, HAMPSTEAD (MR. JAMES BROOKS).

developing out of the face of the pier, is not indeed without precedent in Mediæval work, but its application as the general treatment for the whole pier and vault system of a modern

FIG. 31.—ST. CLARE'S CHURCH, LIVERPOOL (MR. LEONARD STOKES).

church is unusual, and it carries out happily the characteristics of the exterior architecture of his churches—avoidance of carved detail, and production of architectural effect by the opposition of different planes of surface. Mr. Stokes's design is an example of one method of treating the "passage-aisle" interior; and this design also produces its effect rather by opposition of surface planes than by decorative detail, though it is a kind of design which offers ample opportunity for the introduction of decoration if desired. The vaulting-shaft of orthodox Gothic has supplied the hint for the most characteristic detail of the interior, the mullion-shaped feature which rises from the circular base of the pier, the plinth mouldings stopping against it, and dies into the cove formed by the over-sailing course of masonry which carries the wooden cornice of the roof. It is this feature which gives its character to the design, in a manner which is worth the study of the young architect. The passage-aisle plan, though, as has been pointed out, it is quite a mistake to fancy it economical, has the advantage of being a very suggestive one for the architect, for the precise reason that there are no Mediæval precedents for treating it. The simplicity of treatment of the timber roof in this interior is another point worth notice; plain as it is, it is quite satisfactory, and harmonizes with the treatment of the substructure. The good effect of a solidly treated but perfectly plain timber roof is a point which it has taken Mediæval revivalists a good while to find out. Not but that a sumptuously carved and decorated timber roof is a splendid thing, but there is no middle course; it must be done on a grand and liberal scale, or let alone altogether; nothing is more feeble in effect than a thin and economical ornamental roof. The revival by Mr. Fellowes Prynne of the built-up stone reredos, as in the design for a church at Staines, of which the interior is shown (Fig. 32),

is an important suggestion in modern-mediæval church architecture ; it certainly tends towards monumental effect by making the screen of the same material as the walls or piers. It is just a question whether, as employed here, it does not tend, by the large size of the openings, to dwarf the scale of a church interior, which an ordinary wooden or metal screen, with its small detail, tends on the other hand to enhance. The scheme prepared by Mr. Sedding for the interior decoration of Holy Trinity Church, in which various artists were to work together for a combined effect —bronze statues at the bases of the piers, a fresco frieze in the triforium, mosaic designs in the spandrels, etc., was one of the boldest and most sumptuous schemes ever proposed for the decoration of a modern church, though it is doubtful, unfortunately, if it will ever really be carried out. The endeavour of the architect towards a complete eclecticism of detail, however, was certainly carried too far in this church, where the pulpit, for instance, of completely Renaissance disposition and design, has the appearance of being an exotic work presented by some wealthy donor who had purchased it in Italy, and allowed to find room in the church out of complaisance to his generosity and good intentions. No one

FIG. 32.—BUILT ROOD SCREEN (MR. FELLOWES PRYNNE).

would suspect that it was, in fact, designed for the position. Architectural style goes for something, after all, and true originality can hardly be attained by merely throwing together Classic and Gothic details in the same building, to see what they will make.

Any one who compares the best recent churches of Gothic type in this country with those of the earlier days of the Gothic revival, cannot fail to notice what a far closer approximation there is, in the works of these latter days, to the real spirit of the Mediæval architecture which has furnished the model for the majority of our modern churches. At the time when the Gothic revival was in full swing, the endeavour was made to imitate exactly the details of the original style—a detail for which no precedent could be found was indeed considered almost inadmissible—but in a thin and cheap manner, and with little perception of the essential character which lay behind these details, and was at the root of Gothic architecture. In the present day we have departed very much from archæological precedent in detail, while at the same time the works of our best architects show far more of the spirit which prevailed in Mediæval building than was ever attained by their more "correct" predecessors of the last generation. And, in fact, it may be said that the only modern-mediæval architecture that is worth anything at all is what has been produced by English

FIG. 33.—GARRISON CHURCH, STUTTGART (PROFESSOR DÖLLINGER).

architects. The Americans do not touch Mediæval architecture much, and as far as they do they seem to be still in the orthodox and imitative stage. To the French efforts in this direction I have already referred, and to the curious fact that in the country which was the cradle of the great Mediæval style it is now less understood, and there is less sympathy with it, than anywhere else. In Germany modern Gothic has preserved something more of the form of the original than in France, but it is more devoid of the spirit of the original style than even the earlier churches of the English revival. If we take such designs

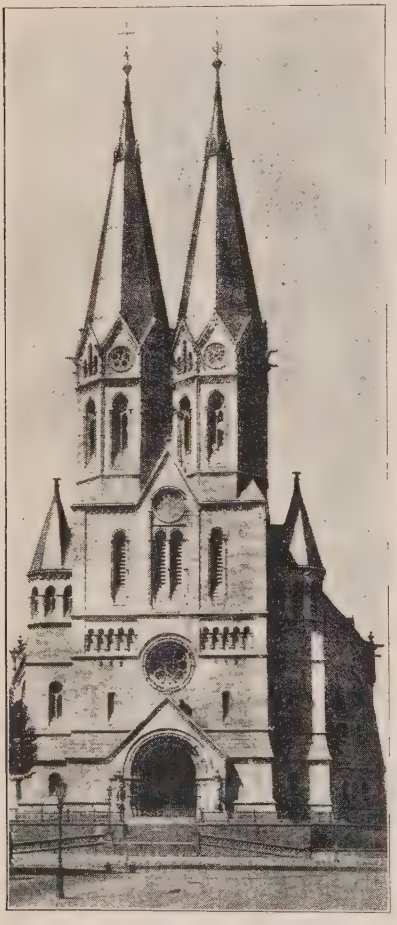


FIG. 34.—RING-KIRCHE, WIESBADEN (PROFESSOR OTZEN).

FIG. 35.—PLAN OF RING-KIRCHE, WIESBADEN.

as those of Professor Döllinger's Garrison Church at Stuttgart

(Fig. 33), or Professor Otzen's "Ring-Kirche" at Wiesbaden (Fig. 34) (and these are considered in their own country to be among the best works of two of the best Gothic men), they impress us somehow as if they had been designed to be executed with that "box of bricks" which is one of the most prominent of the toys "made in Germany." The Garrison Church is as cold and formal, as devoid of masonic expression, as if it were cut out of wood. Both churches have good plans; that of the "Ring-Kirche" (Fig. 35) is an unusual and a clever and interesting plan, which might be capable of a fine interior effect, and the coupled lanterns and double spires of the west front form in themselves a fine and effective architectural idea; but the whole possible effect is nullified by the feeble and mechanical manner in which the design is carried out, the wiriness of its details, and its utter want of breadth or concentration of treatment. It is worth while for the student to compare designs like these with some of the best of recent English church work, and to endeavour to realize wherein the difference consists, and why these German designs, while making use of Gothic forms, have an aspect so hard and conventional, and so entirely unlike anything in genuine Mediæval architecture.

CHAPTER III.

STATE AND MUNICIPAL ARCHITECTURE.

THE class of buildings comprised under the general term "State Architecture" are those which are built out of public funds and for carrying on public functions under the conditions determined by the Government, which in most modern countries represents more or less the will of the people. It is to be expected, therefore, that these conditions should be expressed, as far as may be, in the architectural style of such buildings. As being erected for purposes of great public importance, they may claim, and indeed require, a more dignified, stately, and monumental treatment than buildings for private persons, and their architectural style should appear to bear the impress of national habits and tendencies rather than of individual taste. Municipal architecture is only State architecture on a smaller scale and representing a smaller area of interests; the town hall is to the borough what the legislative palace is to the nation. The town hall should have a relation to the local character and architecture of the borough, as the legislative palace should express the character and architectural tendencies of the nation. The treatment of a public building in any particular town may even to a large extent be decided by the question whether it represents local or national interests. A public library, for instance, carried out by the Corporation of the town should, in its architectural treatment, be governed by the character of the local

materials and tastes. A post office erected in the same town, but which represents the work of a government department, may, however, be quite suitably built without reference to local tastes, but in subordination to a general style adopted as the most suitable for that class of building, in whatever town it may be situated. This is what is actually being done with our own post offices in England, though unfortunately the style of treatment evolved as characteristic of a post office is a very poor one. This is what has been done, on the smaller municipal scale, with the London School Board schools, but fortunately under much better architectural direction; they form a very good example, or collection of examples, of the treatment of public buildings of the same class, and under the same authority, on a uniform principle, though with sufficient variety of detail; they assert themselves in each district as the London School Board buildings, and in this respect form a very favourable example of architecture influenced by official conditions combined with local character, as their style is founded on one which has been at one time specially characteristic of London.

We may classify State buildings as follows:—

1. Palaces for the sovereign or head of the State.

2. The main seat of Government, the building in which laws are made.

3. Civil and criminal courts, in which law is administered or enforced.

4. Offices for the housing of State departments and the carrying out of State business.

5. State-supported educational establishments.

6. State-supported places of amusement.

7. Public monuments and other minor works.

All these classes except the first may be considered as repeated in a secondary form in municipal structures; the town

hall answering more or less to the legislative palace, the sessions and police courts to the assize courts, and so on with the other classes; the word "Municipal" being but as State "writ small."

The first-named class can hardly be said to have any existence in the modern world. Hereditary rulers cannot now appropriate public money as they please to erect palaces for themselves; republics are mostly opposed to any lavish expenditure on architectural display for a State residence, and even in monarchies there is now a very strong economical check kept on any expenditure for such a purpose. A palace built by a sovereign for himself out of his privy purse is, of course, only domestic architecture on a large scale, and may be treated as such architecturally.

There is no doubt, however, that if the government of this country is to be maintained as a monarchy, we owe it both to our sovereign and to the dignity of our capital city to consider seriously the propriety of erecting a town palace for the sovereign worthy of the greatness and wealth of the nation, our only modern palace in London being little better than a national discredit. If this ever should be undertaken, the architectural treatment of such a palace ought to be governed by two considerations. Firstly, it is to be a home, though a home of State, and should therefore be attractive in aspect and without the severe official appearance proper to business buildings erected by the State; secondly, it is to be the home of a succession of sovereigns, and therefore should be planned and designed so as not to appear to represent merely an individual taste, nor with any too strongly marked character of its own day about it, but with that largeness and breadth of style which would sufficiently harmonize with the tastes and manners of successive generations.

Some of the qualities here required, it may be admitted, are

to be found in Buckingham Palace; it looks like a palace and like nothing else, but unfortunately like an exceedingly mean one; and it certainly seems time that the country should consider whether our sovereigns ought not to be housed in a more adequate and dignified manner. If it is considered that the interior rooms are adequate (and they are no doubt better than the exterior would lead one to expect), at least the national resources might be equal to putting a new and more effective and stately façade to the building.

The Legislative Palace or Parliament House is the symbol of the greatness of the nation in regard to wealth, artistic taste, and political power. The building of a new parliament house is usually the outcome of some great national triumph, as seen recently in Germany. A successful war almost always gives the impulse to the erection of large public buildings, partly for glory, partly because prosperity seems on a firmer basis, and there is more readiness to invest capital in buildings. Our own country, however, seems to be rather an exception in this respect, in modern times at all events. Our great position after Waterloo, for instance, received no special architectural illustration beyond the name tacked to a grand bridge commenced four years earlier; but then we did not succeed in getting an enormous war indemnity as the Germans did. Our Houses of Parliament we owe mainly to the fact that the old ones were burned down; and even then we were very near missing the opportunity, for the Office of Works had actually received instructions to rebuild them in an ordinary utilitarian manner, when it fortunately occurred to one or two influential people that this was an opportunity for doing something great. The Law Courts were forced upon us by the serious inconvenience and delay resulting from the inadequate size and scattered position of the old courts. In general, this country has been very backward

to spend any money, or at all events any adequate amount, on the erection of public buildings worthy of a great nation, for the sake of architectural grandeur and display.

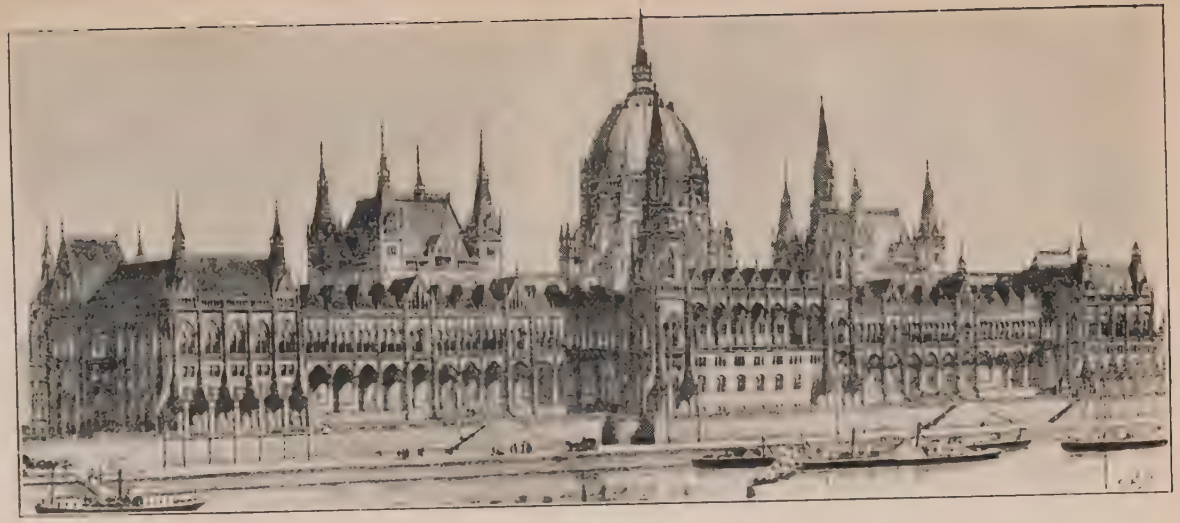
The building of a national legislative palace is an opportunity for indulging in the most grandiose type of plan, for this at least is a building in which economical considerations ought to be left out of account, and ingenious contrivances in planning, with the object of making the most of the ground, should be considered unnecessary and out of place; ample space ought to be allowed for a centralized and symmetrical planning on the most stately lines. The architectural expression and treatment should also convey the impression of liberality of expenditure; every portion should be designed and built in the most solid and monumental manner; anything less than this, on such an occasion, is an open discredit to the nation. And the character of the architectural design should have something distinctly and recognizably national about it; something which could not well be found on any other soil.

Whatever our other failures in public buildings, it may be said that in our own Legislative Palace we have well carried out these conditions. The plan (the general disposition of which is so well known that it is hardly necessary to give an illustration of it) is a grand though simple architectural idea, the central hall as the neutral ground connecting the two chambers and their corridors. This plan is what makes the essential greatness of the building, and its importance in this respect is shown in the fact that every national parliament house built since, with the exception of the German one, has followed this arrangement, or something very nearly like it, as the basis of the plan. The idea as to nationality of style was evidently present to the minds of the Committee, since they limited the competitors to two styles, both exclusively English,

viz.: Tudor Gothic and Elizabethan. I do not say that the result might not have been better architecturally if they had allowed their architect a free hand in regard to style, nor that nationality might not have been expressed in other ways; but the prevailing idea at that time was that a building must be in some recognized "style," and be correct according to that style, and the committee showed a clear perception as to which were the two most distinctly and unmistakably English phases of architectural style The exterior has been criticised as having too much fritter of small detail all over it, and had it been designed in the present day, no doubt the modern feeling for the effect of contrast in architectural design would have led to the introduction of a certain amount of plain wall surface to contrast with the richness of treatment of the other portions. It must be remembered, however, that universal richness of detail is the characteristic of the style which was prescribed, and, moreover, that the treatment was in accordance with a principle definitely and consciously adopted by Barry, whose view was this—that no degree of elaboration of detail was injurious to an architectural design, provided that it were consistently carried out in every portion of a building. This dictum would be questioned now; but it was a definite principle with Barry, and not the result of thoughtlessness or vulgarity of taste. In the general treatment of the exterior he has combined dignity with variety and picturesqueness of effect in a very unusual degree. In placing the two towers at the extreme ends of the building he gives from a distant point of view an indication of its size and extent, and in giving an entirely distinct treatment to them, the one as a decorative and ceremonial tower marking the royal entrance, the other as a utilitarian clock tower, with an enlarged stage at the upper portion for the clock, he showed a true perception of the use of architectural design to express distinction

of function. And while treating the towers with this distinctive character, instead of in a symmetrical manner, he nevertheless placed them so as to avoid any interference with the symmetrical disposition of the river front, which presents that formal stateliness of treatment that is proper to such a building. The distinction between the treatment of the river side and the land side of the Houses of Parliament is a remarkable point in the design, commonly I think overlooked. On the land side the boundaries of the site, and the interposition of Westminster Hall, stood in the way of a symmetrical treatment, and the front was broken up into two distinct portions divided by Westminster Hall. On the river side there was the continuous straight line of the river bank, with no obstacles to a symmetrical treatment, and the façade was therefore given a symmetrical design, parallel to the river. Both treatments are justified by the character of the site, and are in accordance with it. The main point of the plan is finely accentuated by the graceful spire-like erection over it, which contrasts so effectively with the heavier masses of the towers. The one criticism that may be made in regard to the exterior design, considered *en masse*, is that the position of the actual Houses of Parliament, the debating chambers, is not externally emphasized or indicated. The exterior design would certainly have been more complete had this been done. But in spite of this, the Houses of Parliament is in an architectural sense the finest national legislative palace in the world, and one of the best and most original architectural conceptions, ancient or modern ; it is a building of which the country might well be proud, and it is to be regretted that Englishmen in general appear to be so very little aware of its merits.

In the Hungarian Houses of Parliament at Budapest, by Herr Steindl, in which the main idea of the plan is obviously taken from Barry's, the actual houses are prominently emphasized



A. Salle des Pas Perdus.
B. Grand Staircase.
C. House of Lords.
D. Chamber of Deputies.
E. Committee Rooms.
F. Delegates' Meeting-room.
G. Room for Deputations.
H. Foyers.
K. Wardrobes.
L. Dining-rooms.
M. Open Courts.

FIG. 36.—HUNGARIAN HOUSES OF PARLIAMENT (HERR STEINDL).

on the exterior, and the whole design (Fig. 36), with its absolute symmetry and its large dome in the centre, is more grandiose and ambitious in intention than our building, but how commonplace and vulgar is its architectural taste in comparison. In the design for the Japanese Houses of Parliament at Tokio (Fig. 37),

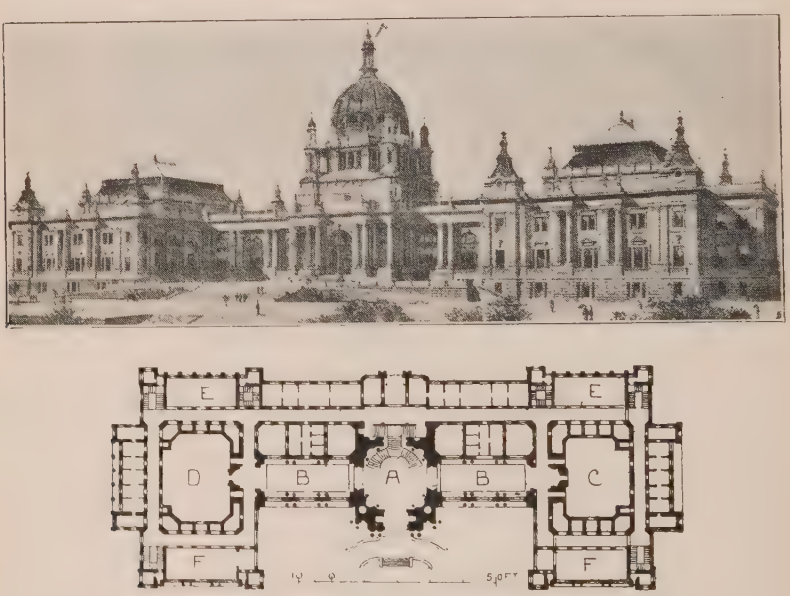


FIG. 37.—JAPANESE HOUSES OF PARLIAMENT (ENDE AND BOECKMANN).

A. Central Hall.
B. Salles des Pas Perdus.
C. House of Lords.
D. House of Commons.
E. Libraries.
F. Dining-rooms.

by Messrs. Ende and Boeckmann, of Berlin, we again find Barry's main idea, the octagon central hall and the corridors leading right and left to the two houses, adopted; and here also we find the position of the chambers indicated in the roofing, but in a most ugly and commonplace manner; indeed the whole design is a mere piece of drawing-board platitude. Among

other modern designs for legislative or State houses of secondary class as to size there is a good deal of interest in the competition designs which were produced recently by a number

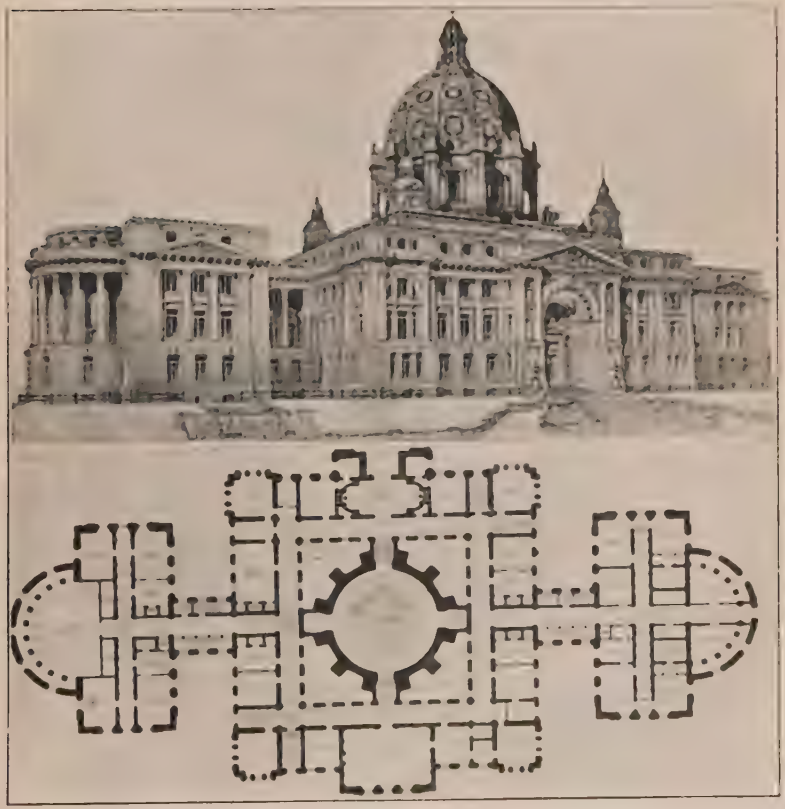


FIG. 38.—COMPETITION DESIGN FOR STATE HOUSE, MINNESOTA (MR. FLAGG).

of American architects for the proposed State house for Minnesota, many of which were published in the American architectural journals. The majority of these showed plans based upon Barry's idea. The designs were nearly all based on

classical models, and all, as far as I have seen them, strictly symmetrical in treatment. Some of them are interesting examples of classic materials treated with a good deal of fancy and originality. The one given (Fig. 38) is that by Mr. Ernest Flagg, a well-known American architect, and is original and effective in plan, though the separation of the two council rooms at opposite extremities of the building is open to objection in regard to convenience of communication.

The most important legislative palace of recent years, however, is that just completed at Berlin, and in view of the theory already expressed, that such a building should have a certain national character about it, the German House of Parliament is a rather curious instance of the extent to which this may be done unconsciously (to all appearance), and in a style which is not originally native to the soil. In regard to plan, the Berlin building (Fig. 39) is grandiose and strictly symmetrical in arrangement, with those ample dimensions in corridors and staircases which form such an important element in giving internal dignity to a building of this class. The front portion of the plan, the central octagon with wide corridors running right and left, so far repeats again the main motive of Barry's plan, and had there been two Chambers to provide for, the resemblance would probably have been carried further; but as there is only one Chamber, of course this occupies the central position, in the rear of the entrance hall. The architectural style is a German version of Italian Renaissance. The worst point about the design is undoubtedly the principal cupola, which is probably the ugliest and (considering its scale) the meanest central feature to be found in any great modern building. The square form of roof with the convex hips is ugly and clumsy in itself; its only merit is that it marks the situation of the main apartment. The introduction

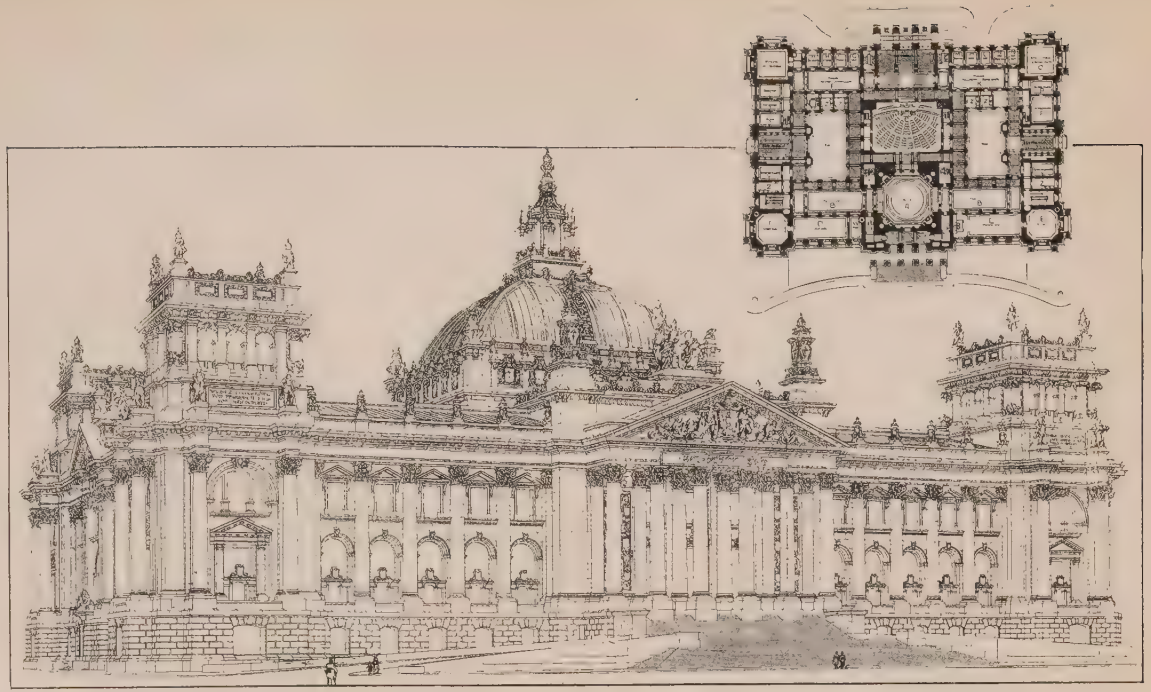


FIG. 39.—BERLIN HOUSES OF PARLIAMENT (PROFESSOR WALLOT).

of an iron roof with a large stone lantern on the top of it deprives it both of unity of structural design and monumental character. The angle pavilions of the building, above the main cornice, show some originality and power of detail, but they are absolutely useless erections, and are, on the other hand, far too heavy and massive to be accepted as mere decorative additions. The design of the lower portion of the façade exhibits the conventional academic use of the Order as an ornament only, without any reference to the actual division of the building into stories. This treatment is to be found, of course, in many striking and remarkable works of Renaissance architecture, but it is not the less an architectural mistake, and that it has been made often before is no excuse for repeating it. The details generally are very deficient in taste and refinement. Yet, with all this, it cannot be denied that, with the exception of the unhappy central cupola, there is a certain character and power about the building. The manner in which the large Order of half-columns is connected or incorporated with the intervening portions of the design—the arcades of the lower windows abutting right upon the columns, and the string under the upper windows boldly butted against them—does something to remove the usual appearance of uselessness in a decorative Order, and makes the columns assume more or less the function of structural piers or buttresses. The profusion of military emblems all over the building forms a kind of decoration quite in keeping with the character of an empire founded on a great military success; and the decorative carving introduced, as in the huge panels which flank the main entrance under the portico (Fig. 40), although it is undoubtedly coarse in style, is characterized by a great deal of what may be called ostentatious vigour. In short, the building is a highly characteristic production of a nation strong in arms, exceedingly

self-assertive, and exceedingly deficient in artistic taste; it is a national building which at once stamps itself as German to the core.

The interior treatment of the building, as illustrated in the view of the main Entrance Hall (Fig. 41), shows more of refinement without losing dignity and monumental character. In this latter respect it may instructively be compared with the thin wiry Gothic of the Vienna Town Hall staircase (Fig. 42), without a particle of real Gothic feeling, and looking as if it were made out of cast-iron.

The Town Hall or "Hôtel de Ville" is to the city what the Parliament House is to the State, but it does not follow that its architectural treatment should be similar. The town hall of a large city may very suitably be treated as a stately and symmetrical building; but if an irregular and picturesque treatment be preferred, there is no unsuitability in this, so long as the prevalent style of the city architecture is not at variance with it. The fact is that town hall architecture is a good deal governed by the influence of historical association. The Mediæval town hall has to a great extent influenced the habits and predilections of modern citizens and modern architects. The ideal of the Mediæval town hall was a compact and very simply planned block of building, with a high tower attached to

FIG. 40.—CARVED PANEL, BERLIN HOUSES OF PARLIAMENT.

FIG. 41.—ENTRANCE HALL, BERLIN HOUSES OF PARLIAMENT.

it: in Mediæval times almost always as a central feature of the principal façade, the block on either side being symmetrically treated. The almost universal tower was no mere æsthetic and useless ornament. It was to hang a large clang of bells in; and not only were the bells the natural sign and accompaniment of public festivals, they were also the call to arms—a very important function in those turbulent times; the signal

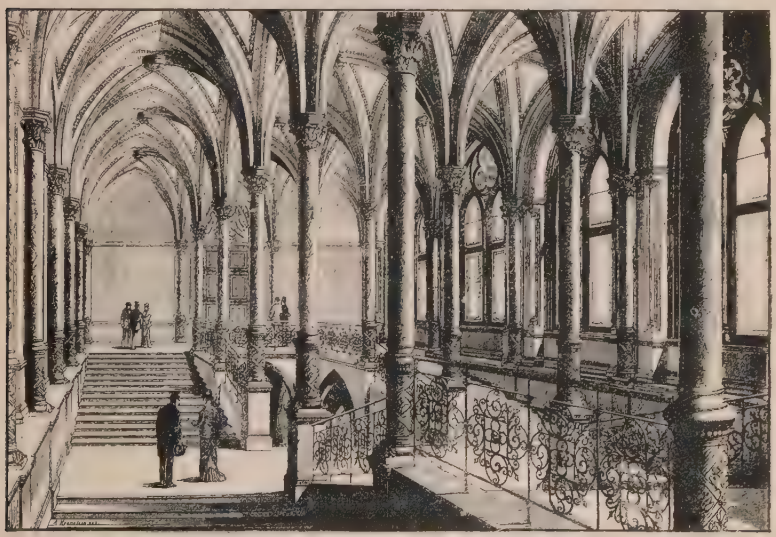


FIG. 42.—STAIRCASE, VIENNA TOWN HALL (HERR F. SCHMIDT).

for this being given, as is well known, by ringing the peal backwards. The block of building with a central bell tower became, therefore, the recogized form of a Mediæval town hall; and it is on account of this old association, descended to us from an age of different habits and circumstances, that this form of building impresses every one as "looking like a town hall," as people say. This association has been peculiarly persistent in England, insomuch that the French accuse us of

being the only people who keep up the habit of building useless towers to our public buildings. This is not quite the case, for the Hamburg corporation have only recently built a town hall quite on the old Mediæval lines, with a centre tower and spirelet; and the French themselves, it may be observed, retain the old model so far that nearly all their suburban and provincial town halls take the form of a high-roofed symmetrical block with a turret or *flèche* on the centre of the ridge, the survival of the Mediæval bell tower; and occasionally they retain the actual tower, but generally only on a small scale. It may be observed that though the peal of bells is no longer *de rigueur*, the turret or *flèche* is not therefore useless; it has a practical value in marking the position of the town hall from a distance, and guiding the visitor to it. In the case of a first-class town hall for a large city, even a large and monumental tower, although of no use except for the display of a clock, may be justifiable in an architectural sense, just as the Victoria Tower is justifiable, as a ceremonial tower to mark and give dignity to the state entrance.

Although, as has been already observed, the town hall is architecturally to the borough what the legislative palace is to the nation, in regard to plan there are conditions which are special to the town hall. The legislative palace is a place for privileged entry only; the town hall building consists largely of offices for the transaction of business in which the public are concerned, and to those parts of the building they must have free and convenient access. And the town hall shelters, among other persons, a functionary called the town clerk, who holds a position different in its nature from that of any functionary to be found in the legislative palace. His office is the centre of the business of the borough, and the medium of communication between the public and the municipal authorities.

His public office ought therefore to be so placed as to be not only easy of access to the public, but obvious to every one. There are few town halls in England that are well planned in this respect. In the municipal offices of one of our largest towns I remember having to enquire for the town clerk's office, and being told it was "the third door round the corner, in the next corridor." There ought to be no necessity to search for it at all. It should be so placed that the public cannot miss it; it is their "general enquiry office." As far as they are concerned it should be on the ground floor, but there are difficulties as to this. The town clerk, as the chief official of the corporation, requires to have easy and convenient access to the mayor, who is the central representative of municipal authority; and as the mayor is the dispenser of official hospitality, and his reception-rooms must almost of necessity be on the upper floor or *piano nobile*, his private room must be there also, and should also be in close contiguity with the town clerk's private office. But, at all events, if the town clerk's office has to be sought on the upper floor of the building, its position should be central and conspicuous to the visitor as soon as he has ascended the main business staircase, so that there can be no mistake about it. I am not sure that the convenience of all persons concerned might not be best met by having the town clerk's public office on the ground floor and immediately facing the principal business entrance, while the town clerk's own private office and that of his confidential clerk or secretary might be on the first floor, with a special stair of communication, and in contiguity to the mayor's room. This would not be quite so convenient for the clerks, but it would be more convenient to the majority of the rate-paying public, who perhaps have the first right to consideration, and I suggest it as a point worth the attention of architects who are planning town halls.

The function of the town hall varies somewhat in proportion to its size and the size and importance of the borough, in a sense which also affects its scheme of planning. In a small town the town hall usually includes a large room for public meetings, which, on the occasion of a reception by the mayor, becomes the principal entertaining room, and must therefore be more or less in connection with the mayor's apartments. In towns of a larger size the public hall or halls for meeting will be provided for elsewhere, and the mayor's department will be expanded into a large suite of reception-rooms on a grand scale. In the former case the principal staircase of the building will almost always have to be the general working staircase; but it will be necessary also to provide for the inferior section of the audience at a public entertainment, those occupying the cheap places, by a separate staircase; and it will also be necessary to provide sufficient emergency exit doors to avoid any dangerous or inconvenient crush from an audience leaving all at once. In the larger class of town hall, where there is no assembly room, the guests at a mayor's reception will be presumed to be all of the same rank, or at least to be treated as such, and the grand staircase alone will be used for their entrance; and as people at such a reception do not leave all at once, as at the end of a concert or lecture, there is no necessity for special exit provision. But then there comes in the question whether the grand entrance and grand staircase should be used as the general main entrance for the ordinary business of the building, or whether it should be set apart as an entrance for state occasions, and the everyday business of the building served by other entrances and staircases. There is something to be said on both sides. If the main staircase is kept for state occasions, some part of the architectural impressiveness of the interior is wasted in its everyday use. On the

other hand, if the main staircase is to be a really fine one, and is to make its best effect on state occasions, it must almost inevitably be too costly in its materials and decoration to be suitable for daily business traffic, and it can never, under those circumstances, be kept properly fit to be seen on the occasion of a grand function. My own opinion is that for a first-class

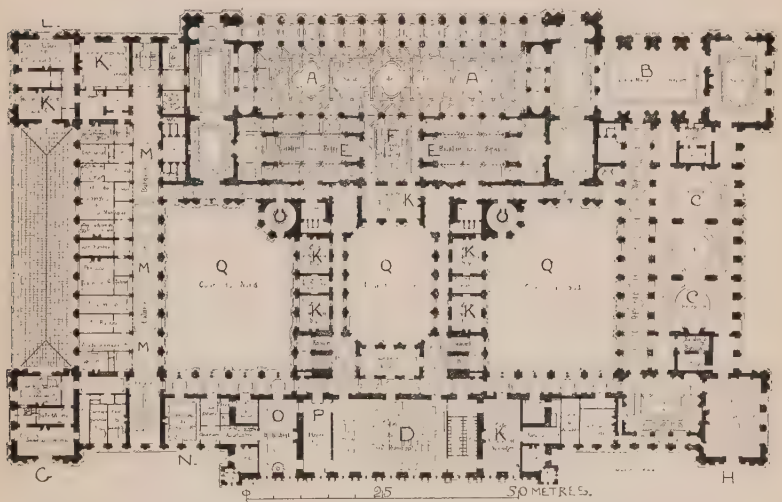


FIG. 43.—PLAN OF PRINCIPAL FLOOR, HÔTEL DE VILLE, PARIS.

A. Salle des Fêtes.
B. Salle à Manger.
C. Salons de Reception.
D. Council Chamber.
E. Grand Staircase.
F. Salon des Cariatides.
G. General Secretary.
H. Préfet.
K. Committee Rooms.
L. Directeur des Travaux.
M. Various Offices.
N. President of Council.
O. Library.
P. Buffet.
Q. Open Courts.

town hall the grand staircase ought to be a really fine one of a palatial appearance, and ought to be reserved for state occasions, separate business entrances and staircases being provided. In either case the cloak-rooms and retiring-rooms which must be provided must be on the ground-floor, so that the visitors can get rid of their coats or wraps before ascending the staircase, a point which has sometimes been overlooked.

And the cloak-rooms for ladies should not be close to or immediately opposite those for gentlemen, a point which is nearly always overlooked. It seems to be supposed by many architects (especially those young in planning) that the proper or natural way to treat ladies' and gentlemen's cloak-rooms is to place them symmetrically—on each side of the entrance hall,

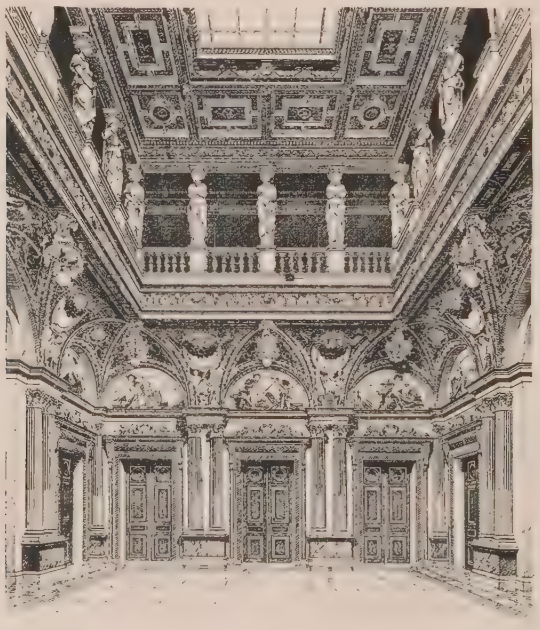


FIG. 44.—SALLE DES CARIATIDES, HÔTEL DE VILLE, PARIS.

for instance, with the doors facing each other, which is exactly what should not be done. The door of the ladies' room should always be so placed that it is not visible from the door of the gentlemen's room; but it is very seldom that this is attended to.

Among the larger class of modern town halls, the largest, and in many ways the most remarkable, is the Hôtel de Ville

at Paris, both for its exterior architectural effect and its stately plan (Fig. 43). This is emphatically a town hall for state and ceremonial. The larger portion of the principal floor is occupied by the reception-rooms, the great "Salle des Fêtes," the galleries and corridors in connection with it, and the State staircase, to which ample space is given, and which is treated in a most

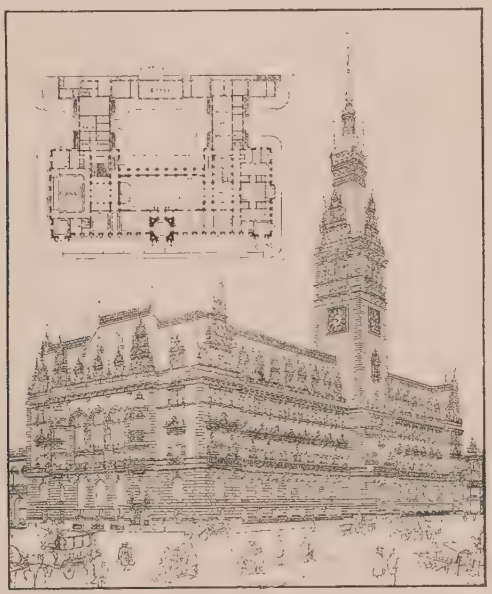


FIG. 45.—MUNICIPAL BUILDINGS, HAMBURG (HERR GROTJAN).

grandiose manner, consisting of two straight flights of wide stairs ascending in opposite directions between retaining walls, with return loggias above, meeting in the central "Salle des Cariatides" (Fig. 44), forming the side ante-room to the "Salle des Fêtes," which has also a stately access at each end. It is unfortunate that, with the exception of the exterior of the central block (which is a copy of the old Hôtel de Ville), there is a good

deal in the details that is not in very pure taste, and that the pictorial decorations, in which the first French painters of the day have found employment, have been carried out with no unity of scheme or style, each artist pursuing his own bent

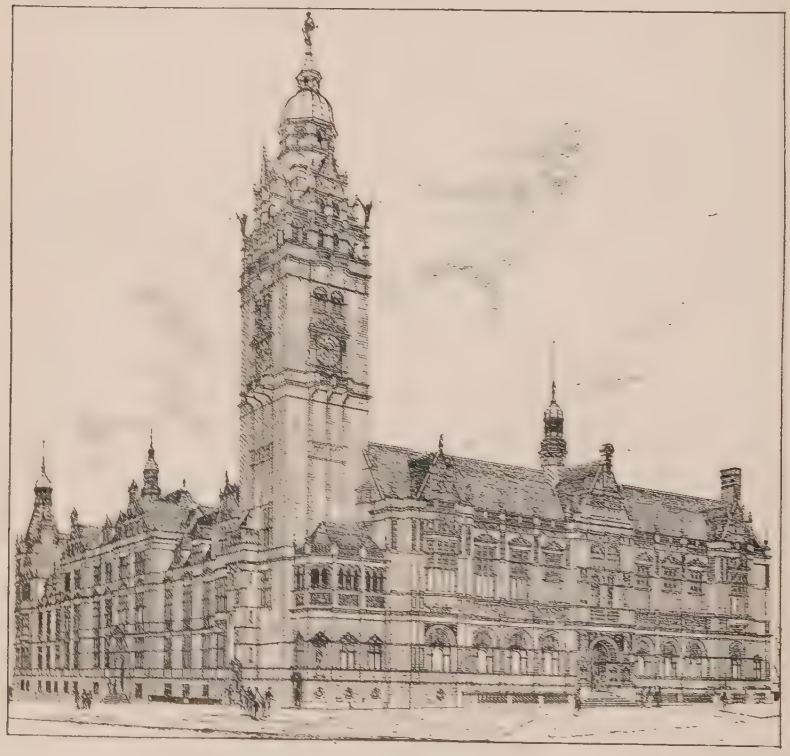


FIG. 46.—MUNICIPAL BUILDINGS, SHEFFIELD (MR. MOUNTFORD).

independently of the others; but, in spite of these drawbacks, it is a building of which any city may well be proud. The Hamburg town hall, to which reference has been made before, is a good example of the purely symmetrical or stately Mediæval model, with the tower in the centre (Fig. 45). The plan, though

it also gives opportunity for a great deal of interior dignity of effect, is, it must be confessed, naïve to a degree, and would hardly be accepted in England as an example of anything worth calling planning. The building is the joint production of a kind of syndicate of architects, of whom Herr Grotjan was the senior. Mr. Mountford's Sheffield town hall (Fig. 46) represents the type of the town hall with a tower, and with a good deal of Mediæval feeling about it, treated unsymmetrically. The plan (Fig. 47)

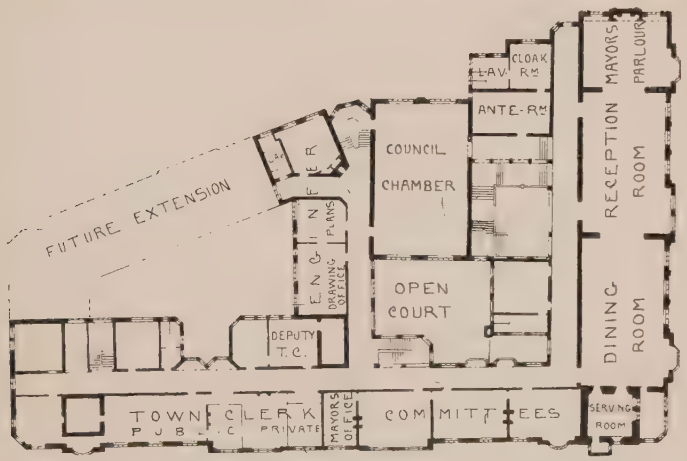


FIG. 47.—PLAN OF MUNICIPAL BUILDINGS, SHEFFIELD.

is in most respects a very good one. The angle position of the tower would be justified by the site if it were carried down to the ground, and if it marked a cardinal point on the plan. Unfortunately it marks nothing but a strong room on the ground floor, and a serving-room to the mayor's apartments on the first floor; and the descent of the lines of the tower to the ground is masked by the two small pieces of building which cling to it, one containing a serving stair, the other latrines. This is perhaps hardly the way to render a tower a true architectural element in

such a building, or to answer the criticisms of the French as to our introduction of "useless towers" in our town halls and other structures. The treatment of the building in detail is rich and effective; the central portion of the main front is shown in Fig. 48. The Bath municipal buildings, by Mr. Brydon (Fig. 49), is a very successful attempt to add to an old civic building in the prevalent eighteenth-century style of the city by additions on each side which, while presenting a certain individuality of character, nevertheless so far harmonize with the old building which forms the centre that they might be supposed to have formed a portion of the original design. The front, in its completed form, is a very well-balanced composition, the two graceful cupolas on the end pavilions forming an effective contrast to the dome in the centre; and the quadrant at each end of the new building, with the sculptured bas-reliefs (the

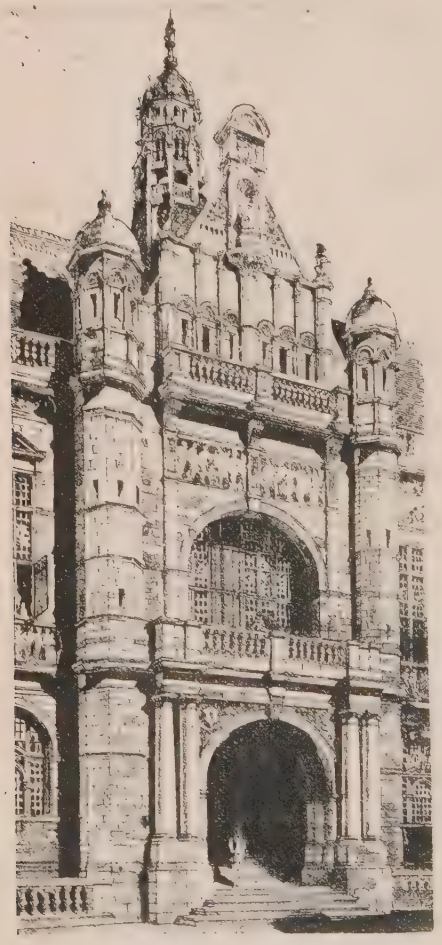


FIG. 48.—CENTRAL PORTION OF SHEFFIELD MUNICIPAL BUILDINGS (MR. MOUNTFORD).

work of an eminent sculptor, Mr. Lawson), forms an original feature in the design, and assists in giving it distinction and individuality.

The abortive competition for the once-proposed Edinburgh municipal buildings is worth referring to, though the premiated design was never carried out, as the exceptional nature of the site, on the High Street level in front, and sloping very rapidly to a much lower level in the rear, afforded an opportunity for picturesque treatment which the authors of the premiated design,

FIG. 49.—MUNICIPAL BUILDINGS, BATH (MR. BRYDON).

Messrs. Leeming, made very good use of, carrying the Order of their front elevation round to the back without the addition of any architectural features of the same kind on the lower portion of the back elevation, where the Order would have appeared on the top of an immense height of plain walling (Fig. 50). The detailed treatment, it must be confessed, is commonplace enough, but the general idea is fine, and the plan, under these very difficult conditions, was an exceptionally good one; in fact, one of the finest plans ever submitted in a modern architectural competition (Fig. 51). The side elevations of two others of the competition designs are given to

show the distinction between the treatment of a design in accordance with the special suggestions of the site, and the

FIG. 50.—FIRST PREMIATED DESIGN FOR EDINBURGH MUNICIPAL BUILDINGS: BACK ELEVATION (MESSRS. LEEMING).

neglect of these. Fig. 52 is from the author's competition design, in which the mullioned windows and wall-tracery which

formed the prominent feature in the High Street front are carried straight out above the descending line of steps, stopped at the angle by a massive tower which was to contain the main staircase from the lower level * ; on the principle that, where the ground falls rapidly, anything in the shape of a tower should rise from the lower, not from the higher level, so that the greatest possible height of vertical line is obtained, while the mass of the tower appears, as it were, to support the building

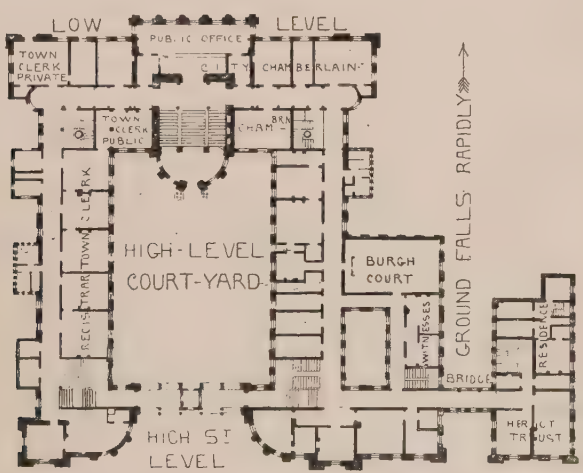


FIG. 51.—MESSRS. LEEMING'S PLAN FOR EDINBURGH MUNICIPAL BUILDINGS.

rising up the slope. This angle, moreover, was the one which would have been most prominently seen from a distance. Fig. 53 is the side elevation of another of the competition designs, which may be thought more pleasing in detail than my own rather *bizarre* effort, but it will be seen that in this case the author has entirely ignored the special suggestion of the slope, and has merely added the same architectural features at a lower

* The circular turret at the angle was intended to form a down-pull shaft to supply the mechanical ventilation.

and lower level as the ground sinks, which seems to me to be throwing away an opportunity of producing an unusual and striking architectural combination.

As an example of the planning of a town hall of

FIG. 52.—COMPETITION DESIGN FOR EDINBURGH MUNICIPAL BUILDINGS: SIDE ELEVATION (BY THE AUTHOR).

the smaller class, with an assembly room included, the plan of the new Oxford town hall, by Mr. Hare (Figs. 54, 55), is one of the best to be found among recently erected town halls. It has the disadvantage of being erected on an irregular and hemmed-in site, which has no doubt compelled its lines to be

more irregular internally than they would otherwise have been, but it is a remarkably well-treated plan in itself, showing a great deal of ingenuity in the grouping of rooms and arrangement of stairs, passages, and entrances. On the first floor the council chamber, mayor's room, committee room, and town clerk's rooms, are all grouped together *en suite*, with a special entrance lobby of their own from off the main landing of the staircase. Thus these four rooms, which constitute the area of municipal

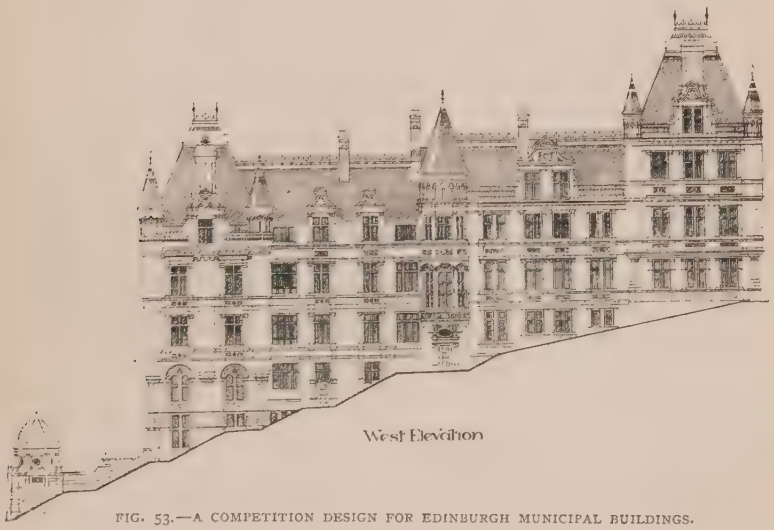


FIG. 53.—A COMPETITION DESIGN FOR EDINBURGH MUNICIPAL BUILDINGS.

business, are closely connected and at the same time shut off from the main staircase, so that the latter can be thrown open to public use in connection with the large meeting-room and the smaller assembly-room, without allowing the public to make the slightest intrusion on the strictly official portions of the building. The same course is pursued with the group of rooms connected with the sessions court, which can also be reached, if necessary, from the main staircase, but can also be entirely shut

off from it by a single door, the justices and the public and others concerned in reaching the court or the jury rooms having each their separate entrances from the street. The town clerk's offices have also a separate entrance from the street. The manner in

FIG. 54.—OXFORD TOWN HALL: GROUND PLAN.

which the oblique angle formed by the large hall is masked on the main landing of the principal stairs, which is the state centre of the building, by the series of recesses in which the doors of the large hall are placed, thus giving a symmetrical architectural

treatment to the staircase hall on this level, is as admirable as it is simple. On the ground floor the ladies' and gentlemen's cloak rooms are placed symmetrically, but there is no objection to this, as the lower flight of the principal stairs is interposed

FIG. 55.—OXFORD TOWN HALL: FIRST-FLOOR PLAN.

between them. Lastly, the manner in which the separate entrance is managed from the street for the portion of the public who may be admitted to the galleries of the large hall, sessions court, and council chamber, by the corridor on the ground floor

leading to special staircases for them, is equally good. The whole plan is well worth the attention of architectural students ; and the exterior architectural design (Fig. 56) is picturesque and effective, and suitable to the architectural character of the city.

The smaller hôtels de ville or "Mairies" (what we should call district town-halls), of which many have been erected of late years for the different *arrondissements* of Paris, are among the most meritorious modern French buildings, and are good

FIG. 56.—OXFORD MUNICIPAL BUILDINGS (MR. HARE).

examples of the minor form of municipal building. Though by many different architects, there is a considerable similarity between most of them in style and general treatment. They are mostly in a free French Renaissance style, with a certain variety of skyline obtained by the introduction of dormers and other features, and almost invariably with the central *flèche* or turret, either on the ridge of the roof or rising in the centre of the front, which serves to mark their position and their special character. One of the most recently erected ones, the Mairie of the Xth Arrondissement, by M. Rouyer, is a good typical

specimen of the class of building (Fig. 57). The plan, as in this case (Fig. 58), is usually laid out on very simple lines, but generally

FIG. 57.—MAIRIE OF xth ARRONDISSEMENT, PARIS (M. ROUYER).

with a view to the most dignified and symmetrical internal effect. In the French Mairie the largest and most important

apartment is usually, as in this case, the "Salle du Mariage," the French law requiring an official ceremony before the municipal authorities, whether there be a church ceremony or not. The French have rightly adopted the practice of rendering the apartment devoted to this civil celebration of marriage as dignified and attractive as possible, not only in its architectural treatment, but by the addition of high-class decorative paintings, which are often the result of a competition among some of the foremost painters of the day. In England, persons who have any objection, conscientious or otherwise, to an ecclesiastical marriage ceremony, have no alternative but the "dusty purlieus" of the registrar's office. A French couple, if they do not wish Religion to sanctify their marriage, can at least have Art as a handmaid.

FIG 58.—PLAN OF MAIRIE OF Xth ARRONDISSEMENT, PARIS.

Two or three of the premiated competition designs for another small French Hôtel de Ville, at Valence, are of interest, as exhibiting the French method of treating small buildings of this kind. Fig. 59 represents the second, third, and fourth premiated designs in this competition, of which the fourth premiated one (the lowest on the page) has to my mind the most character and originality of the three. These may usefully be compared with two or three English designs of the same class—Mr. Mountford's Battersea Town Hall (Fig. 60), an elevation which has more of picturesque feeling than the French designs just named, though perhaps less of dignity; Mr. Brydon's

Chelsea Vestry Hall, a very pleasingly balanced composition (Fig. 61), though it must be admitted that the details are entirely imitative; and the elevation of the competition design for the Oxford Town Hall, by Mr. Ricardo (Fig. 62), which proves, at all events, that architectural forms are not, as some people would persuade us, entirely worked out, and that it is still possible to produce a street front for such a building which shall be entirely new and original as well as picturesque in effect.

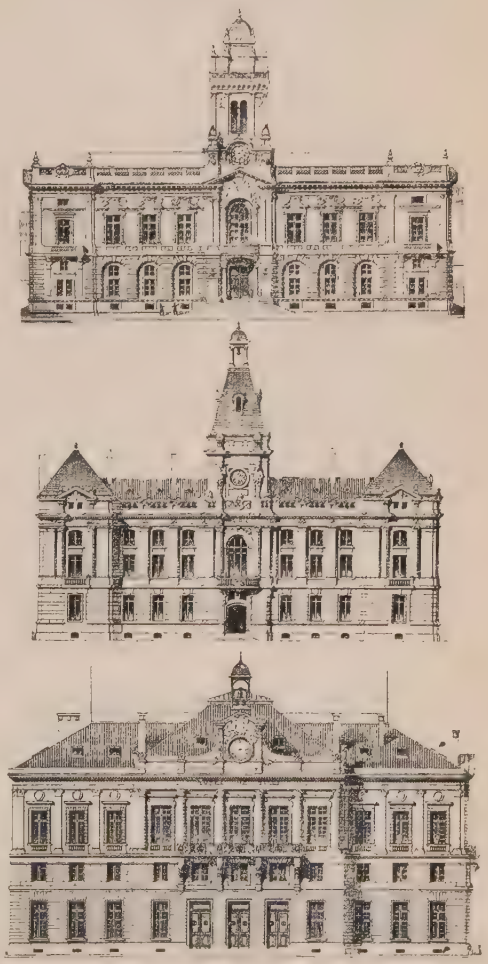


FIG. 59.—COMPETITION DESIGN FOR A FRENCH PROVINCIAL HÔTEL DE VILLE.

The planning of Law Courts, on a large scale, is one of the most difficult problems that can be put before an architect, because of the number of different classes of people who have to be provided for so that they shall be kept from getting in each other's way, and that each shall find his way without

difficulty to his proper destination in the building. Judges must have their separate entrance and corridor and rooms in

FIG. 60.—BATTERSEA TOWN HALL (MR. MOUNTFORD).

immediate connection with the Bench in their respective courts; barristers, solicitors, jurymen, witnesses, and public spectators

FIG. 61.—CHELSEA VESTRY HALL (MR. BRYDON).

have all to be facilitated in their movements and kept out of each other's way. Architecturally, it might seem that a large

group of Law Courts afforded a good opportunity for seeking to give to the building some special character and expression in keeping with its object; and perhaps, were there a great national Law Courts competition over again, some attempt of this kind would now be made. In the actual competition for the London Law Courts, the general idea seemed to be to make them look as like a cathedral as possible. As a judge said who visited the exhibition of the designs, "I see many fine towers, but where are the courts?" One design—that by Mr. Seddon—did show a tower which had really a *raison d'être*—a great

FIG. 62.—COMPETITION DESIGN FOR OXFORD TOWN HALL (MR. HALSEY RICARDO).

"Record Tower" of stern and grim architecture, rising to an immense height, which in these days of lifts would really have been a perfectly feasible and convenient way of storing records; and the idea of a tower which held the records of the kingdom showing as a visible object from afar was a fine one. As to the actual building which has been the ultimate result of the competition, it is in the main as unfortunate a result as the Houses of Parliament was a fortunate one. The finest feature in the interior—the great hall—which ought to have been a *salle des pas perdus*, a general meeting-ground for those concerned in the business of the courts, is rendered absolutely useless by being

placed on a different level from the courts, the corridors around which are always crowded with persons jostling each other in these narrow limits, who ought to have had the wider space of the great hall to meet in. The building is full of unlighted or ill-lighted corridors, and is one of the most puzzling buildings to find one's way about that has ever been erected. The courts themselves, when once attained, are not by any means so faulty either in regard to acoustics or ventilation as they have been said to be. But the only really good point in the planning is the arrangement of the access to the public galleries in the courts, and that was copied from Mr. Waterhouse. The style is an unwieldy resuscitation of early Mediæval architecture, the only decided merit of which is its monumental largeness and solidity of detail. But it has for a long time past palled on the Mediævalist, and the whole building, as an architect once observed to me, is "the grave of modern Gothic"—a costly and inconvenient anachronism.

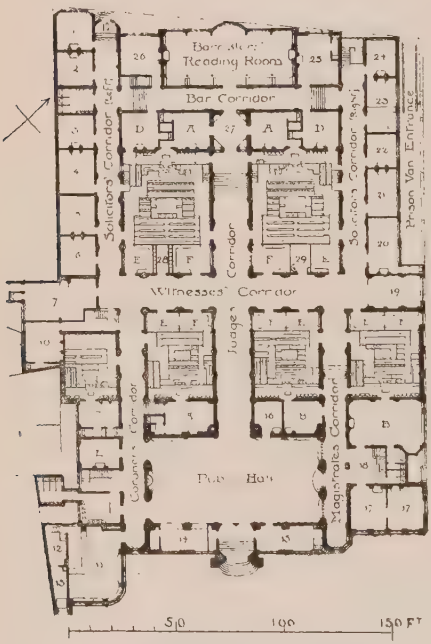


FIG. 63.—PLAN OF BIRMINGHAM LAW COURTS (MESSRS. ASTON WEBB AND INGRESS BELL).

One of the best-planned buildings in England, on the other hand, is the Birmingham Law Courts (Fig. 63), an interior perfectly simple and logical in its arrangement, but with a

simplicity which is really the result of long and careful study. The architectural design is pleasant and picturesque, but the facilities of terra-cotta seem to have led the architects into too great an exuberance of detail, not all of the most refined type. Still, this is a notable building, and one of which the plan is well worth the attention of the student. The Imperial Law Courts at Leipsic (Fig. 64) is one of the recent large buildings of this class, in one of the coldest and most ponderous varieties

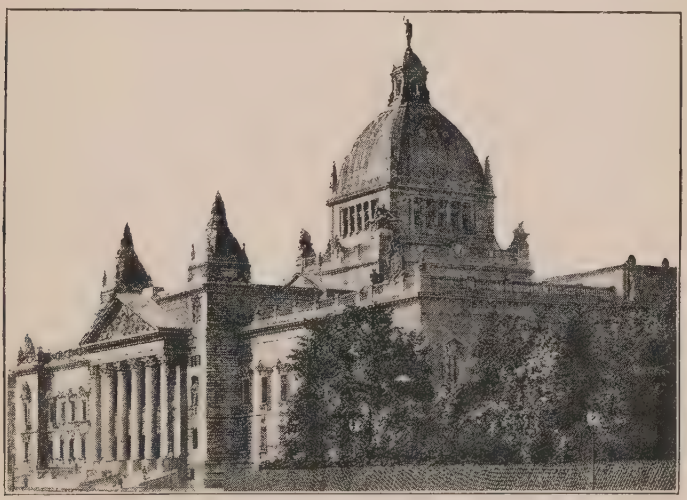


FIG. 64.—IMPERIAL LAW COURTS, LEIPSIC.

of German Renaissance, with a central feature nearly as ugly as that of the Berlin Houses of Parliament. The plan is one of those symmetrical arrangements on a great scale, in which symmetry and stateliness are the main objects, and the arrangement of the rooms is a secondary matter—a kind of plan not improper in a royal or a parliamentary palace, but hardly in place for law courts, where, as already observed, considerations as to what will facilitate business and avoid confusion are of

paramount importance. The interior, however, undoubtedly offers some fine effects (Fig. 65), superior to what the cold and formal appearance of the exterior appeared to promise. At Brussels, on the other hand, the building of new Law Courts was made the occasion, the unwonted occasion, for the creation of a new architectural idea ; a building which for boldness and originality of conception finds few parallels indeed in modern times. It is based on Classic materials, but treated in a manner quite different from that of conventional revived Classic ; the architect brought his own fancy and imagination to bear on the task, and produced a building which is so unlike the commonplaces of modern architecture, that the view of it (Fig. 66) gives one the idea of some mythical structure of romance or of prehistoric times. Lucky for M. Poelaert that he lived under a Government that could appreciate and allow scope to his genius. Had he been an English architect he would only have been snubbed and told he was wasting public money.

FIG. 65.—INTERIOR, LEIPSIC LAW COURTS.

In addition to the general legislative palace or parliament house, every government requires a certain number of separate buildings for carrying on the business of the leading departments into which its work is divided, such as in this country are classified under the general term "Government Offices;"

and such buildings form commonly an important element in the architecture of the capital. As such departments have frequently occasion for inter-communication, and as the responsible head of each department is usually a cabinet minister, who has therefore to divide his time between the special offices of the department and the house of legislature, considerations both of architectural effect and of practical convenience would seem to dictate the treatment of the government offices as one great group of buildings, near to each other and, collectively,

FIG. 66.—BRUSSELS LAW COURTS (POELAERT).

near to the seat of legislature, and designed in subordination to one great architectural scheme. No Government, however, has, I believe, ever carried out, or attempted to carry out, such a comprehensive scheme. Generally speaking, the rebuilding or enlargement of each department is called for separately, and it is carried out without relation to the other office buildings, either architecturally or otherwise. There is something to be said, no doubt, in favour of this piecemeal system. It distributes the expenditure over a larger period of time, and it enables

each block of offices to be rebuilt at the juncture when more accommodation becomes necessary, and when the new requirements can be accurately estimated. The drawing out of a great scheme for the whole, however, to be carried out as required until completed, is always possible, and would lead to a final result much more worthy of a great capital than the erection of unconnected buildings on such sites as can be obtained from time to time. In our own case, we had such a plan drawn up by a great architect, Sir Charles Barry, about fifty years ago, according to which all the Government Offices were to be concentrated on a site between Whitehall and Parliament Street, Great George Street, and St. James's Park, in one great range of buildings divided up into courtyards connected by archways, the buildings round each courtyard being devoted to a special department. It is seldom that so fine and comprehensive an architectural scheme is put at the disposal of any government, and it is a thousand pities that an opportunity should have been passed over which can now never recur. Since then, the history of our Government Offices has been mostly the history of planning great things and executing small ones. The beginning was a poor one, and the progress has been downward since then. The Home and Foreign Offices are designed on a liberal scale in regard to site, and can boast of a fine and spacious internal courtyard; but the external architecture is feeble and yet pretentious in style, and designed without due reference to the interior requirements. With the idea of giving dignity to the upper story, the windows are treated as large semi-circular openings, but the lower portion of these is on a level with the floor, and the whole range of upper rooms is consequently comfortless and ill-lighted. The competition for the War and Admiralty Offices ended in a *fiasco*. The buildings for the two Departments were at first competed for and

designed together: and rightly. They represent two departments which are in close relation with each other, and in which it is occasionally necessary that the officials of both departments should hold joint council under the same roof. The premiated design was selected mainly on account of the beautiful drawings submitted, although it was clothed with architectural scenery in which a columnar order, supporting nothing, was projected from the building, having no relation to the structure, and no practical function except to darken the adjacent windows. The interior was planned with small courtyards, far too small for effect even in a much lower building, and which, in the high proportions of the building, would have become mere funnels, as many persons realized for the first time when a model of the proposed design was exhibited. Finally, it was decided to build the Admiralty only (without even any consideration as to where the War Office was ultimately to be placed), and the process was adopted of economizing the original design by robbing it of the only architectural merit it possessed—that of a certain rich though superficial decorative effect, cutting it down also in regard to scale, till the result is a tame and mean-looking building, totally destitute of any of the dignity and impressiveness which should characterize the home of the naval administration of the greatest naval power in the world, placed (not unappropriately in regard to its architectural character) on a back site where it is never seen from any main thoroughfare—a standing discredit both to the liberality and the architectural taste of England.

Since then we have had the final Report of the Special Committee on what is called the "Parliament Street Improvement Scheme," but in which really the most important point considered is the site for the proposed new War Offices, which it is now proposed to build on the ground, of which the greater

portion is now vacant, nearly opposite the Horse Guards, and called, in memory of one of the demolished buildings which once stood there, the "Carrington House Site." As a matter of convenience of position, in regard to proximity to the Admiralty, this is one of the best sites now available, but the Report is a preparation for another architectural failure. The Surveyor of the Office of Works went into calculations of floor area with the object of showing that there was space enough and to spare on this site for all the requirements of the War Office; but how was this result obtained? In the first place, by carrying the building line right up to the oblique and irregular lines of the boundary of the site, thereby entirely sacrificing the grandiose and imposing character which ought to distinguish the War Offices of such a country as this—treating the building, in fact, as if it were a monster hotel in which the main object was to utilize every available foot of ground in order to get a commercial return for the expenditure; and secondly, by covering the interior part of the site so closely as to leave only small and insignificant courtyards, the largest of which is insufficient for architectural effect, and the smaller of which are objectionable even on sanitary grounds, as they will be mere wells within the lofty buildings surrounding them. It is impossible that any adequate architectural treatment of such a building as a national War Office can be realized on such a limited site, and under such conditions; it is already what may be called an organized failure.

One point in regard to the planning of such buildings seems to have been decided by the common consent of those most concerned, which may be said to be the only benefit we have obtained from the large competitions for Government Offices, viz: that corridors should be directly lighted from the outer air, and that courtyards for light should light corridors and not

rooms, *i.e.* the corridors should be carried round the interior of the courtyards, and the rooms look outward. When one considers, on the one hand, the inferior sanitary condition of working-rooms looking out on a closed quadrangle (even of tolerably large size), and the stagnant condition of the air in such a quadrangle in hot or still weather, and, on the other hand, the inconvenience and the mean and depressing effect of long interior corridors only half lighted by one end window or by borrowed lights, it is certainly something to have got the authorities to arrive, as I believe they have, at a tacit conclusion that internal corridors between ranges of rooms are no more to be favoured. Beyond this, what can we say generally in regard to the architectural treatment of Government Offices? The detailed arrangement of plan will of course depend on the requirements of each department in regard to the number of rooms, the classes of officials to be provided for, and their relation to each other. In regard to the architectural treatment there seem to be two possible principles. One is to treat such buildings in a dignified and impressive manner, without attempting to give them any special character other than what belongs to building national offices on a palatial scale. This would no doubt have been the character of Barry's immense group of combined offices, had it been carried out, and this will probably be, as far as it goes, the manner in which all the separate blocks of offices required from time to time will be carried out, if our usual architectural conventions bear rule. We shall know that the Home Office is the building facing Parliament Street, that the War Office is the building facing the Horse Guards, and that the Admiralty Office is the building facing nothing at all; but there will be nothing in their architectural style to make any one of them more suitable for one purpose than the other. Yet how different this might be. How far more interesting

would such buildings be architecturally, if there were an attempt made to treat each of them in a manner suitable to and more or less suggestive of its purpose. What characteristic architectural distinction might be made between the buildings for a War Office and an Admiralty Office, a Home Office and a Foreign Office, if each of them presented an original architectural conception intended to express more or less the nature of the purpose for which the building was erected! For three out of the four great departments named it is now too late; but

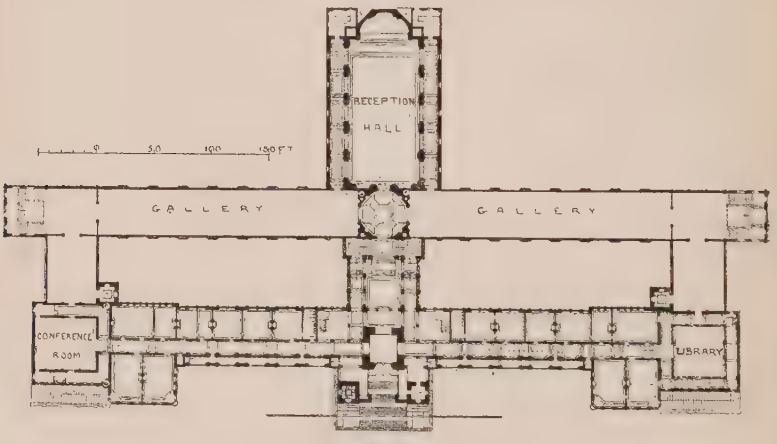


FIG. 67.—PLAN OF IMPERIAL INSTITUTE (MR. COLLCUTT).

something out of the commonplace might surely be done with a building so suggestive and so special in its purpose as a War Office, in place of the usual architectural platitudes of pilasters and window pediments.*

* There would have been no impossibility in treating Barry's large scheme in such a manner, as far as the interior courts were concerned. The exterior would have demanded a palatial unity of design; but the interior courts, each devoted to one class of offices, would have been susceptible of a distinctive treatment, separately, without interfering with the unity of the whole.

In somewhat the same category with government offices comes such a building as the Imperial Institute, the result of a limited competition which was of considerable interest, and in which it must be admitted that the best man won. The plan of the Imperial Institute as given in the competition design (Fig. 67) was an excellent example of that symmetry and centralization of plan lines which it has been noted is essential to the idea of a State building of the highest class. The tower marks the intersection of the state entrance and the business corridors; beyond it is a grand staircase by which we approach an octagon hall which acts both as the centre of the longitudinal galleries and the vestibule to the reception hall beyond. Nothing could be more suitable and more dignified for a building of this class—a building which was to symbolize the imperial character of the Government of this country, and the relation of England with her colonies. This point may be emphasized by comparing the plan with a portion of another plan submitted in the competition (Fig. 68), a plan accompanied by an architectural design of great beauty and refinement, but which, as a plan, is entirely destitute of dignity, centralization, or clearness of conception. The tower here also marks the entrance vestibule, but the visitors are no sooner in it than they have to face about to the left to get out of it, and then to the right to make entry through the arcade into the central hall, and even that arcade is not central with anything; or, if the visitors go straight on out of the lower vestibule through the opposite arch, they find themselves in a small angle lobby

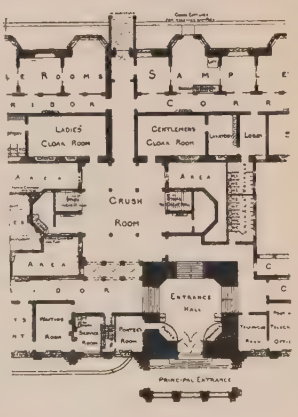


FIG. 68.—ILLOGICAL PLANNING.

with a blank wall opposite to them. This is not planning at all; this is throwing a plan together hap-hazard.

The Imperial Institute, as erected, can hardly be called a great building, but it is an eminently refined one, and as such is

FIG. 69.—HALL, IMPERIAL INSTITUTE (MR. COLLCUTT).

worth the attention of architectural students. The effect of every moulding seems to have been considered; all its details are refined in character; and the treatment of the timber roof over the hall and staircase (Fig. 69) is novel and dignified.

The tower is perhaps rather narrow in proportions, and looks as if, as a matter of scale, it ought to be rather larger than it is. The English taste for towers, commented on before, was rather markedly illustrated in the competition. Mr. Jackson designed an exceedingly lofty and very graceful tower, rather on the general lines of German Mediæval Hôtel-de-Ville towers, though the details were to be free classic. Messrs. Webb and Bell adopted the rather bold device of planting an entirely separate tower in a central position in front of their buildings, a feature which would no doubt have had a striking appearance, though it would be rather difficult to justify such a separate erection, serving no practical purpose whatever, nor even defining any point in the plan. The design itself of this tower (Fig. 70) is worth attention, however, for the ingenious and effective manner in which the features of the upper stories are, as it were, *sunk* from the main lines of the angles, which are carried up straight to the pinnacles surrounding the lantern, the four faces of the wall being gradually set back as the tower ascends, so as to develop buttresses out of the angles. The initial mistake in regard to the Imperial Institute was its site, which, for a building to represent the colonies, is a great deal too far away from the seat of legislature and from the other Government offices. This

FIG. 70.—CENTRE OF DESIGN FOR IMPERIAL INSTITUTE (MESSRS. ASTON WEBB AND INGRESS BELL).

mistake has no doubt led to its being a comparative failure as regards its main objects, though this does not affect the question of architectural design, except perhaps in furnishing an additional excuse for the introduction of the tower, whereby the position of the building can be recognized from a distance.

Post and telegraph offices form a not unimportant department of State architecture, in which, as already observed, a certain unity of style should characterize the buildings which, though erected in different towns, are all under one State department, and all intended to exercise exactly the same function in accordance with the same general routine; the only difference lying in the different sizes of the buildings, corresponding with the demands of each locality. The central or General Post Office of the capital city, only, may seem to claim some special treatment as distinctive from the provincial branches, besides its superior size. In our own case the original Post Office at St. Martins-le-Grand was a building of the old dull classic school, with no suitability in its external appearance for its purpose, and little attempt at special interior arrangement. The second auxiliary block of offices (with the design of which it is believed that Fergusson had something to do), though there is nothing in it specially suggestive of a post office, and though it is a piece of purely academical architecture. has unusual merit in its kind: it has a solid and dignified appearance, the architectural features are combined in a satisfactory manner, and there is a restraint and severity of style about it which renders it more agreeable to the judgment than many of the more ornate and pretentious modern classic buildings of the day. In the third block of buildings, a purely official erection, although the general scale and lines are such as to match, so to speak, with the other block, all this dignity and severity of treatment are at an end; the new building has none of the good qualities of the

older one. The Office of Works designer, whoever he be, seems to have felt it incumbent on him to make the new block different from the old one; he was not able to make anything better, so he made something worse. Here again it would be worth the while of young students to compare these two blocks of building, and to note the differences in detail, and try to discover why it is that the older block, though presenting nothing architecturally remarkable, has something satisfying and dignified in its general appearance, and how it is that this quality has evaporated in the new block, which is obviously intended as a pendant to the older one.

The florid and ill-balanced style which characterizes the new block of building at St. Martin's-le-Grand is unfortunately no less characteristic of the new local post offices in different towns in England, all the production of the architectural genius of the Office of Works. All these buildings are showy and commonplace in style, exhibiting bad decorative treatment and a character quite out of keeping with the practical objects of the buildings; in one town after another they are being erected, an annoyance everywhere to that proportion of the inhabitants who have any artistic perception; yet it never seems to occur to the authorities of the Office of Works that anything better can be or ought to be produced in national Post-Office architecture than the weak and tawdry buildings got out by their surveyor. What is wanted in the architectural design of such a class of buildings as post-offices is not decorative treatment, especially of this mechanical type, but an obvious practical suitability for the tasks that are to be carried on in them, with that degree of severe architectural character which can be imparted to such a building, without overlaying it with useless and unmeaning architectural(?) detail; and in complacently turning out a series of commonplace buildings with no other assistance than its own official

staff, the Office of Works is not doing its duty to the country. We want something better than official architecture; let the surveyors of the Office of Works be employed in the tasks in which they can be really serviceable, the negotiation for and purchase of sites, and the surveying necessary in preparation for new buildings—all that is useful work which may well be done officially; but for architecture we want something higher than what can be done by official surveyors with an upper-class draughtsman engaged to put in the ornament. The French Government recognize this; they put a "Poste et Telegraphe" building into the hands of an eminent architect, and they get buildings which are less pretentious than ours, but far more purposelike, considering their object. The most remarkable set of drawings in the architectural room at the Paris Salon of 1896 was that which delineated the central depôt for "Matériel des Postes and Telegraphes," a great plain practical building, with no pretension to be anything but what it was, and which our Office of Works would probably have condemned as not sufficiently "architectural"; but that design won for its author, M. Scellier de Gisors, the gold medal of the year at the Salon. Let the Office of Works send over to the next Salon their most florid post-office design, and see if the jury will give them a gold medal for that!

Somewhat analogous to post-offices are police depôts or central offices, which are also State buildings of a practical character and for a practical and prosaic purpose, but which are capable of a good deal of characteristic architectural treatment. In London we have been fortunate in this respect; Mr. Matthews, who was at the Home Office when the question of erecting the new building came up, instead of letting it be turned out of the official mill, had the good sense to make inquiries as to who was esteemed the best architect of the day, and to invite him to

design the building. It is both a picturesque building in its way, and also has a certain stern character befitting its object, though I think the upper part is rather unnecessarily bedizened with finials and some other ornaments belonging to a conventionally accepted style of the past. Still, it is a building which is a

FIG. 71.—POLICE HEAD-QUARTERS, VIENNA (HERR FRÄNKL).

credit to London architecture. In regard to this subject, the difference between characteristic and non-characteristic architectural treatment is not badly illustrated by the two designs Figs. 71 and 72. The first is the Central Police Office at Vienna, by Herr Fränkl, which might just as well be a large street mansion or an apartment-house. The other is the originally

accepted design for the Ninth Precinct Police Station at New York, by Mr. Du Fais. One might not necessarily guess it to be a police station, but at all events it could not be taken for a private house, or an apartment-house, or a hotel; it has a distinctly official appearance, and that of a somewhat stern character, suitable to its purpose.

In the case of the London fire-engine stations there has been a praiseworthy attempt to give to these buildings a special and recognizable character, by the employment generally of the same class of materials and of a certain castellated or fortress-like character in design; but they have failed in effect chiefly through want of simplicity, through a too broken-up and pretentious style of treatment. A fire-engine station, with its large doors for the engines, and in many cases its tower for outlook, is, or should be, a very suggestive kind of building to the architect, but in our London stations these emphatic points have been lost through an attempt to over-emphasize the whole elevation, which only leads to weakness and want of character.

FIG. 72.—DESIGN FOR POLICE STATION, NEW YORK (MR. DU FAIS).

For what can be strictly called State educational buildings we must look rather abroad than at home, for our great schools are not controlled by the State, but it is convenient to class them here, as they cannot be classed properly with private or domestic architecture. It is the fact, however, that the architecture

of public schools in England has always tended to assume a semi-domestic and picturesque character, and in this respect it is significant to compare these with the product of purely State-regulated education in France. There the system of education for boys and girls is controlled by the State according to a uniform and Procrustean standard; there is no possibility of the individuality of character and method and associations which distinguishes Harrow, for instance, from Eton, and both from Rugby; and this difference is reflected in the types of building in the two countries. The French Lycées, which are to the upper classes in France what our School Board schools are to the lower classes in this country, are so many education-*mills*, in the main on one approved pattern with little difference in detail. They are absolutely devoid of architectural picturesqueness or of domestic feeling or expression (see Fig. 73); built in accordance with the best constructive and sanitary knowledge (as many English schools unfortunately are not), they look nevertheless more like prisons than schools. Daudet, in "Le Petit Chose," has drawn a powerful picture of the hard and joyless rigidity of system in the conduct of the French Lycée, and the normal architecture of the Lycée exactly expresses the life which Daudet describes. In our Board Schools, especially in the London district, as already observed, we have happily avoided for the most part this tendency to mere utilitarian pattern building. All over England these schools have been mostly designed with some attempt, in many cases very successful, to render them picturesque and attractive; for which fact we are much indebted to the influence of Mr. Robson, the former architect of the School Board for London, who certainly set the example in this respect. It is only in the class of schools directly in connection with the Education Department, what are called "graded schools," that we find in England something like

the formality and forbidding aspect of the French Lycée. I noticed a huge erection not long since at Leeds, which I took for a factory, but which I learned on inquiry was the "Central Higher Grade School;" a building absolutely horrible to the sight, when one reflected that this was to be the home for great part of the day of hundreds of children, who would be taught

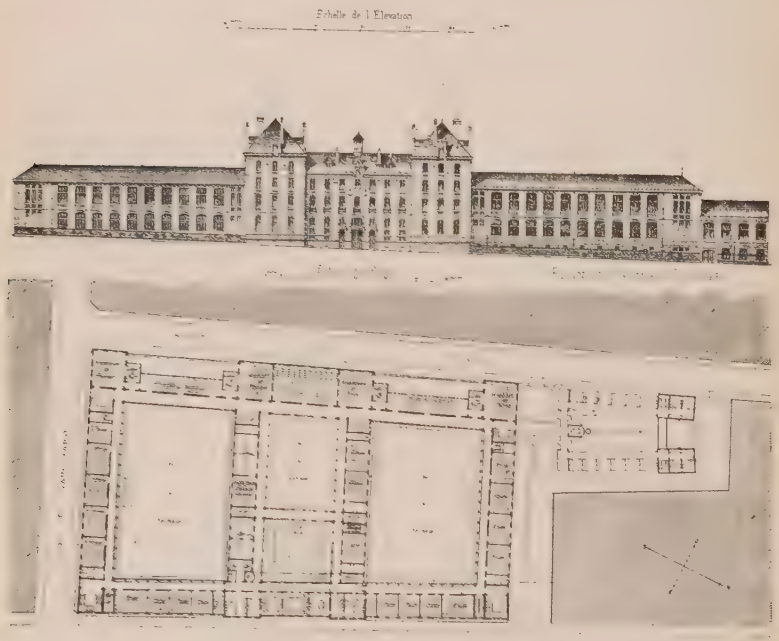


FIG. 73.—A MODERN FRENCH "LYCÉE."

thus to associate the idea of education with the architecture of a cotton-mill. An important part of education, though little recognized, consists in familiarizing the minds of the young with associations connected with what is pleasant, beautiful, healthful to mind and body; and the school building may be an important element in this part of education. To familiarize children, in

the most impressionable period of life, with ugliness and baldness in the buildings which they connect in their minds with the idea of education, is to give education a repellent aspect, and to lose a most important opportunity of cultivating a taste for what is gracious and beautiful in the surroundings of their lives. The great want in the English middle class is the love for and appreciation of what is beautiful, and this is not to be wondered at if they are educated from childhood in ugly buildings.

FIG. 74.—THE NORTHAMPTON INSTITUTE, LONDON (MR. MOUNTFORD).

Fortunately, in some of our new polytechnic and technical institutes this point has not been lost sight of, and in the Northampton Institute, by Mr. Mountford (Fig. 74), the new Technical School and Museum addition for Liverpool, by the same architect, and the West Ham Technical Institute, by Messrs. Gibson and Russell, we have, or shall have, buildings not only well planned for their purpose, but fine and striking in their architectural treatment.

In our highest class of educational buildings we have

generally kept up a semi-domestic character in the architecture, mainly perhaps through the influence of long association, since the old buildings in our two great Universities, most of which in point of architectural style are quite perfect, in their combined dignity and repose of character, as types of scholastic architecture, have impressed on us a sympathy for this type of architectural treatment for such a purpose; and the new buildings by Mr. Jackson at Oxford and by Mr. Champneys at Cambridge and Newnham have very well kept up the feeling of the old architecture. Some of those at Oxford are perhaps, indeed, a little too imitative. In one respect, however, we shall probably have to revise our traditional habit of school and college building. There is certainly no method of building which is so pleasing in itself for a school or college as the quadrangle, especially with an open cloister round it, and perhaps none that is so comfortable; but it is not the most healthy form of plan for a building where a considerable number of inmates are to be crowded together. The objection is perhaps less important in university buildings, where men are not so crowded; but for the collection of the great number of boys in a large school, who are almost necessarily more closely crowded than men are at the universities, it is certain that a closed quadrangle is not the best form of building for preserving the highest conditions of health among the inmates. This consideration influenced the plan by Messrs. Aston Webb and Ingress Bell, selected in competition for the new Christ's Hospital schools at Horsham. This is the most important school plan of recent times in this country, and its example will probably have a considerable influence on the future planning of English public schools. In this plan the different houses for masters and their respective complement of boys are each treated as a separate building, the whole set being arranged in a slight curve, with

plenty of space between them for the circulation of air, and the total numbers of the school are collected together at intervals only in the great hall or in the chapel, which stand at the centre of the whole group. It may be easy to see some minor objections

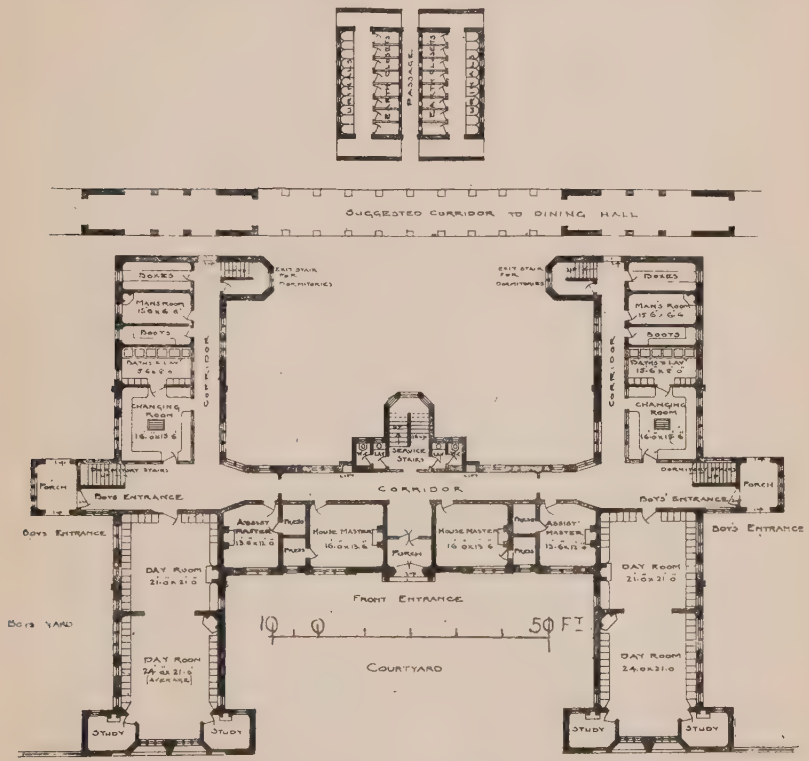


FIG. 75.—PLAN OF BOARDING HOUSE, NEW CHRIST'S HOSPITAL (MESSRS. ASTON WEBB AND INGRESS BELL).

to this scheme on the score of convenience; but that it is a far healthier type of plan for a school numbering several hundreds of boys, than any plan of compacting all the members together in one building, is unquestionable, and the breaking up of the

boys into isolated groups has probably advantages also in the way of regulation and discipline. The plans of the separate houses, as a combination of master's residence with boys' study and dormitories, are worth attention. It will be seen (Fig. 75) how well the boys' entrances are kept quite apart from the house entrance, while the walls of the boys' studies next the private entrance of the house are left almost without windows, to avoid the entrance to the house being overlooked by them. The manner in which the private studies at the end of the room are attached, so as to get space between them for the south light (so essential to health), should also be noticed.

In France we have recently seen nearly the completion of an immense educational establishment, the new Sorbonne, which has brought great fame to its architect, M. Nenot, and which illustrates the different feeling in regard to modern collegiate buildings in France as compared with England. Here we are struck by the absence of anything like a specially collegiate style, as we feel it in England. As far as its architectural expression goes, it might as well be a Hôtel-de-Ville for a large city. There is this to be said about the new Sorbonne, however, that it is carried out with an artistic ambition such as we never rise to for a building of this class in England. The accessory sculpture and decorative paintings are the work of the first French artists of the day, and the results mainly of competitions into which many other first-class sculptors and painters entered. It is seldom indeed that we rise to this in England; one might almost say "never." In a general way the modern French mind still seems to connect the idea of a refined classic type of architecture with the expression of buildings for scientific as well as for literary study. Take, for example, the beautifully refined façade of the "Faculté de Médicine" at Paris, by M. Ginain (Fig. 76).

This may be thought a very artificial and conventional design ; but, at all events, with what scholastic refinement it is carried out. Before we criticise its *genre*, let us think of our own recently erected Medical College on the Thames Embankment, with its commonplace aspect and detail, and be reticent.

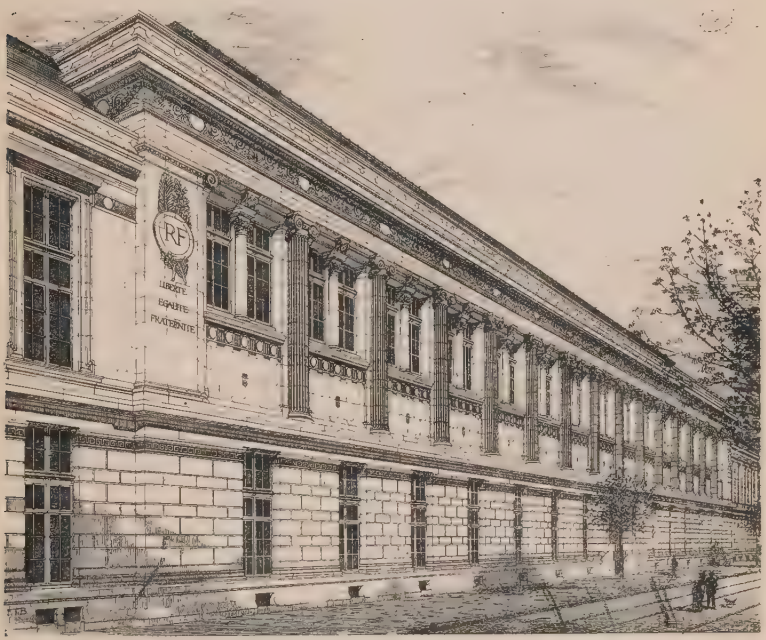


FIG. 76.—THE BUILDINGS OF THE "FACULTÉ DE MÉDICINE," PARIS (M. GINAIN).

In the United States also the tendency is to follow classical rather than Mediæval models in collegiate structures, as in the Alumni Hall at Dartmouth College, by Messrs. Lamb and Rich (Fig. 77), though some recent American buildings of this class are influenced also by the neo-Byzantine type of architecture, with short piers or columns and round arches and carved

"cushion" capitals, introduced by Richardson, and in part, one may say, invented by him.

Among State-supported educational establishments we ought to reckon Museums and Art Galleries; for though regarded by the masses as mere places of amusement, their real intent is educational, and their real value is dependent to a considerable extent on the manner in which their contents are arranged so as to be available for serious study. In the planning and arrangement of public museums there are, in fact, two classes of visitors to be considered — the general public, who are to be allowed to perambulate the museum and pick up whatever of instruction and recreation they can get in a desultory way, and the real students who wish to study the examples more closely and systematically; but it may be questioned whether any museum has actually been carried out with a definite attempt to provide for the requirements of both these classes of visitors. The attempt to do this was made, however, by Mr. Waterhouse in planning the Natural History Museum, where there was to have been, on either side of the great hall, a series of bays with cases which could be seen by the ordinary visitors from

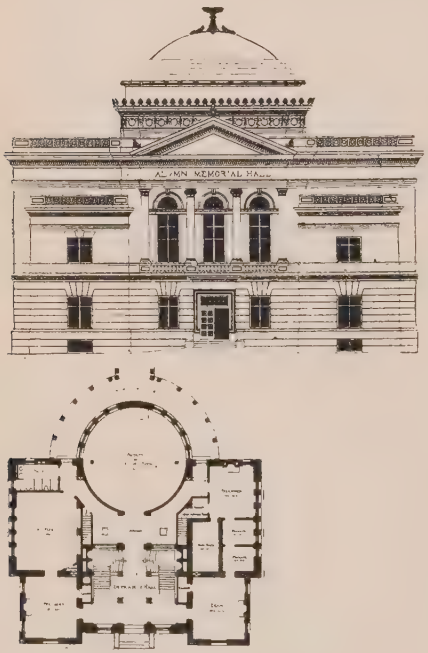


FIG. 77.—ALUMNI HALL, DARTMOUTH COLLEGE, U.S.A. (MESSRS. LAMB AND RICH).

the front, but which were also accessible by a private passage from the back, where specimens could be closely examined and, if requisite, handled under proper supervision, or by those who did not require supervision. This was one of those improvements in the planning of buildings which have been effaced by Government economy, the architect not having been allowed to carry it out on account of the increased expense entailed; but it suggests a very important possible improvement in the planning of museums, and it is as well at least to bear it in mind, in case there should arise another opportunity of putting it into practice.

In the architecture of museums there has been a great tendency towards the employment of classical types of building, for which there are two excuses not without weight. In the case of a museum of art and antiquities, it is probable that the most valuable, or at all events most beautiful, part of the collection will consist of relics of antique art, and there is a certain appropriateness in rendering the architectural treatment of the building symbolical to some extent of the nature of its contents. The purposes of a museum of artistic antiquities, too, are so entirely removed from—one may say so entirely above—the ordinary practical requirements of life, that an idealized style of architecture seems only natural and in place here. Our great national museum at Bloomsbury is a fair illustration of this. It is all imitative architecture, as far at least as the detail is concerned, and it is easy to say that the exterior colonnades constitute a waste of space, which would be far more valuable if thrown into the interior; but, after all, it must be admitted that the façade conveys the idea of being a building erected for some great and noble purpose, of being the screen to some treasures of more than ordinary or merely commercial value; and, so far, it is in its way a success; and there is a severe nobility of style

about the interior, too, which harmonizes with its contents. The failure is in the provision for the health and convenience of the working staff. The building was erected by a generation unpractical in these matters; but, as a great museum of antiquities, it is impossible to deny that there is a certain architectural fitness about it.

The other consideration which seems to lead architects, not unnaturally, towards a classic or essentially horizontal type of architecture for museums is a practical one, and consists in the fact that a museum or a library (for the two classes of buildings stand to some extent on the same footing) means in general a building in which a great deal of wall space is wanted for the arrangement and placing of objects, and in which a top light is desirable for seeing them; a style in which there is much solid wall and little visible window, therefore, is in keeping with the practical objects of the building.* For another reason ordinary windows are little required; when in such a building we are supposed to be entirely occupied with its contents, and do not require windows diverting our attention to the outer world. If it be a library, we want the walls to range books against, and a top light to study by. These conditions seem to point to the treatment of a museum or library as a building of low proportions, and without any of that civic or ceremonial expression which a tower or turret implies. Thus the design shown in Fig. 78, a competition design for a free library which was not carried out, is obviously, from its appearance, not a library or anything of the kind; it is a small town hall for a country town. M. Ginain's admirable building for the Galliera Museum, at

* I am not, of course, advocating the employment of mere "revived classic" for the architecture of museums—only pointing out that revived classic, if the architect chooses to adopt a known style, has a certain practical suitability for this class of building which it has not for most other modern buildings, and that, at all events, something on the general lines of classic architecture may well be aimed at.

Paris (Fig. 79), is quite an art museum in appearance and character; and the Virginia Library at Chicago, by Messrs. Shepley, Rutan, and Coolidge (Fig. 80), is a building which suggests either a library or a museum. Both these belong to the class of building of this kind in which side-light is required for at least some of the rooms, and therefore windows come into play as an essential part of the exterior design. Where it is desired to exhibit works of art or archæology by top-light, or to arrange a reading-room for top-light only, and use the whole wall for book storage, the architect has then to consider how he can render the walls sufficiently decorative without windows; probably by the judicious use of symbolical sculpture or carved ornament, though there need be no attempt to cover the wall surface with decorative adjuncts; a very little sculpture or carving, well placed and with a meaning, will suffice to give architectural point and interest to the exterior; and for the rest, the mere preponderance of untouched surface of wall is itself a source of architectural expression, conveying as it does an intimation of the purpose and arrangement of the building. The treatment of the exterior of the gallery of the Institute of Painters in Water Colours, in Pall Mall, is a not unpleasing example of this. But in general it may be said that there are not many

FIG. 78.—COMPETITION DESIGN FOR A PUBLIC LIBRARY (DESIGN NOT EXPRESSING ITS PURPOSE).

cases in which the architect will find himself in the dilemma, in

FIG. 79.—MUSÉE GALLIERA, PARIS (M. GINAIN).

designing a library or museum, of having to deal with walls entirely without windows externally; there are few such build-

FIG 80.—VIRGINIA LIBRARY, CHICAGO (MESSRS. SHEPLEY, RUTAN, AND COOLIDGE).

ings in which some portions at least of the contents do not render an arrangement for side-lighting desirable.

Of State-supported places of amusement we have practically

none in this country, where government in these matters is not of a paternal character; but our theatres and public halls are at least State-regulated, and we must architecturally class them as public buildings under this head. On the Continent, theatres are to a great extent subsidized by the State; in some cases they are really State property, but in the majority of instances in Germany, and I believe in France also, they are built and

FIG. 81.—OPERA COMIQUE, PARIS (M. BERNIER).

partly supported out of public funds. The most noticeable result of this is to be seen in the much more dignified and monumental architectural character of the theatres, as compared with those built in England. The Paris Opera House is a well-known instance; the Paris Opera Comique, the most recent French house (Fig. 81), was the subject of an architectural competition of the first importance, into which the first architects

of the day entered, and which was entrusted to one of them as the result of the competition. The same is usually the case in Germany. In England one never hears of any large architectural competition for a theatre, or of any first-class architect being concerned with the designing and carrying out of a theatre ; to be a theatre architect is, in fact, a kind of stigma on a man, and the people who one hears of as playing this part are mostly those whose names are unknown in any other connection, or even in this one. There is no doubt that there would be a great difference in this respect were theatres as much supported by the State in this country as they are abroad. As it is, a theatre in England is merely a business speculation by a syndicate, who generally have an architect in their pocket, and the whole business of the architect is to carry out a building as quickly as possible (in order that it may begin earning money as soon as possible after the site is paid for), which shall provide the requisite number of exits and sufficiently spacious stairs to comply with building by-laws in regard to theatres, and shall present the incombustible construction and the freedom from obstacles to sight (in the way of columns, etc.) which the public have now learned to demand as a right. Beyond this, the architecture is left to take care of itself ; a few conventional pilasters and "swags" are stuck on the outside, a "decorating firm" is turned loose in the interior with a contract to decorate it in the newest fashion by a certain day, and that is all the part that Art has in the matter.

Yet there is no class of secular building which in itself offers more suggestion for effective and characteristic architectural treatment than a theatre. The fact that the auditorium is necessarily, for practical reasons, planned in a curve for the seating, should be recognized and expressed in the exterior design of this portion of the building, by doing which we should

secure both the fine effect of a sweep of curved lines on the exterior, and also at once stamp the character and purpose of the building. Yet this (as one would suppose) obvious point in the architectural treatment of a theatre has been entirely ignored in almost all theatres built in this country; I do not at this moment remember any instances of it, except the little Shakspeare Theatre at Stratford-on-Avon, and the old Theatre Royal at Liverpool, of Georgian date; a building which had formerly a certain celebrity as being the house where most aspirants for acceptance in London theatres tried their wings in preliminary flights, and obtained the *imprimatur* of provincial criticism. It must be admitted that this exterior expression of the auditorium is entirely ignored in the new French Opera Comique building—the result, as already observed, of a great architectural competition—which might, in fact, as well be a concert hall, as far as its general design is concerned, and which is known to have been mainly selected for convenience of plan, though there is a refinement and balance about the design which is not found in our English theatres designed by architectural nonentities. In the largest recent scheme for a modern theatre, the design by Von Schroeter for the proposed new opera house at St. Petersburg (part of the plan of which is given in Fig. 82), this sweep of the auditorium is made to give the prevailing character to the whole exterior of the auditorium portion, in a manner that, whenever it is carried out, will have a

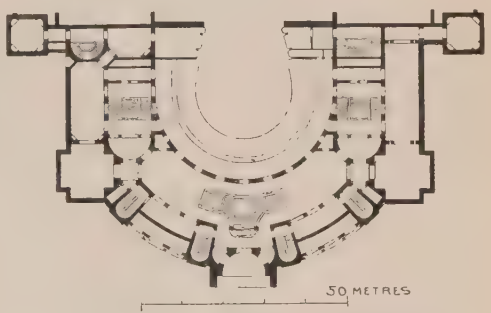


FIG. 82.—PROPOSED ST. PETERSBURG OPERA HOUSE: PLAN OF AUDITORIUM (PROFESSOR VAN SCHROETER).

very fine and dignified architectural effect. Another suggestion offered by the modern theatre lies in the now recognized necessity for numerous and ample staircases, a feature which should not be without its effect on the architectural design ; this is also illustrated in Schroeter's plan. Another marked source of archi-

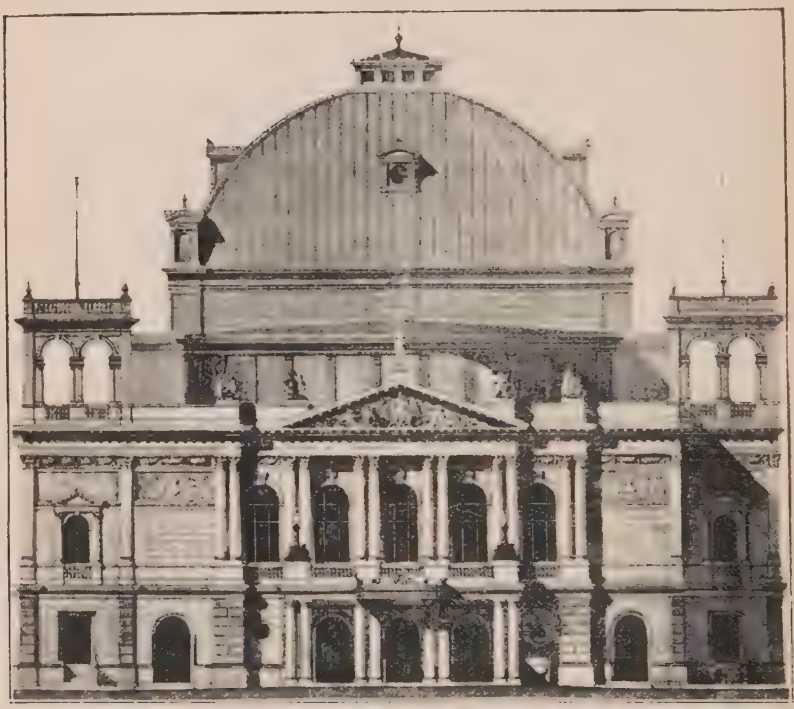


FIG. 83.—LESSING THEATRE, BERLIN : FRONT ELEVATION (MESSRS. VON DER HUDE AND HENNICKE).

tectural effect and contrast, little recognized, consists in the essential difference in function and construction between the stage portion of the house and the auditorium ; the former being constructed for the fixing and the mechanical working of scenery, and with a clear vertical space above the stage ; the

latter being the festival portion of the house, divided into horizontal stages by tiers of galleries. The characteristic treatment of the auditorium portion, therefore, is decorative, with predominating horizontal lines, and curved on plan; the characteristic treatment of the stage portion is practical and constructional, with predominating vertical lines, on a square or oblong plan. The full possibilities of this suggestion for marked architectural contrast have never been realized in any theatre design that I know of; there is a chance, in this way, for an architect of genius to produce something entirely new and original in theatre architecture. The architects, however, of some continental theatres have made praiseworthy attempts in this direction; as, for instance, in the "Lessing" Theatre at Berlin (Figs. 83 and 84), by Messrs. Von der Hude and Hennicke. The general character of this design, no doubt, is far too much confined within the conventional limits of mere column and pilaster work; but the treatment of the masses of the building arises faithfully out of the plan. A very large vestibule, flanked with staircases, forms the front portion of the plan, and gives its square lines to the main portion of the front elevation; but above that the auditorium

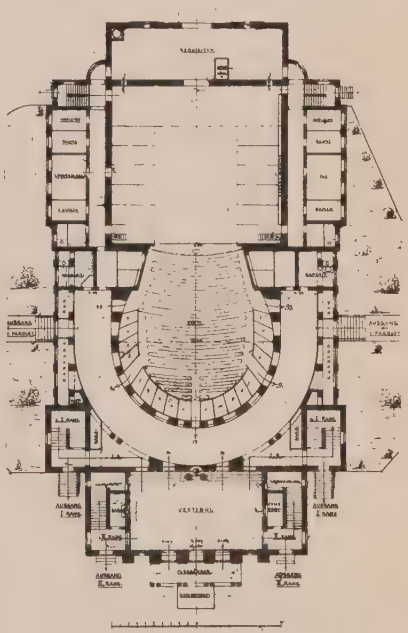


FIG. 84.—PLAN OF LESSING THEATRE.

is recognized and expressed by the curvilinear attic and cornice, which mark its shape and position; and the stage block is treated as a plain solid mass of building contrasting with the more ornate treatment of the auditorium. The architectural expression might have been far more powerful and picturesque if the architects could have shaken themselves clear of the merely conventional "properties" of Renaissance architecture; but the design is well intended, and up to a certain point successful and praiseworthy.

The opera house planned by Wagner at Bayreuth presents,

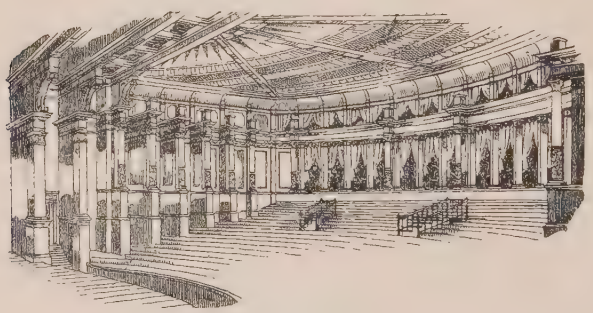


FIG. 85.—INTERIOR OF BAYREUTH OPERA HOUSE.

in its interior plan and section, a new suggestion of great importance. There are no boxes or galleries (the existence of which must always be more or less inimical to the acoustic properties of a house); the auditorium rises in one inclined plane from the stage-front to the back of the house (Fig. 85), flanked by pilasters at the sides which form an architectural perspective leading the eye up to the proscenium opening, and between which the lateral entrances and exits are arranged; and the whole house is kept very plain in character, Wagner having been of opinion that the brilliantly decorative scenes in his operas would gain in effect by having nothing in the house

itself which could compete with the stage decorations, so that the eye was led up to the scene on the stage with nothing to distract it in the foreground. Thus the interior treatment becomes here the reverse of what has been recommended for the exterior treatment; the auditorium becomes the plain portion of the house, the stage the brilliant portion; not architecturally, but scenically. For opera, which (on a large scale) depends so much for its effect on glitter and a kind of supernatural splendour, this is the most suitable treatment of the interior, and we owe a debt to Wagner for pointing this out; for a house designed for "legitimate drama" (to use the conventional phrase) this subdued treatment does not seem necessary, as the presentation on the stage more approaches realism, and the house itself may be decoratively treated without injuring the stage effect. But whilst recognizing the value of Wagner's suggestion for treating the interior, it must be said that the exterior of his theatre is, in an architectural sense, a wretched concern; a remark which it is necessary to make in consequence of the foolish manner in which Wagnerian enthusiasts, who think everything perfection that is done by their idol, have extolled this booth on a large scale, as if it were a remarkable architectural design.*

It may be observed, however, that such a sumptuous treatment of the approaches and accessories to the auditorium as we see in the design for the St. Petersburg theatre, and such an arrangement of the auditorium itself purely for the best effect as we see in the Bayreuth theatre, could never be carried out in

* The contrivance by which Wagner sunk the band out of sight, in the section of his theatre, is a point rather of musical than architectural importance. It suited his form of Opera and his view of the functions of the orchestra, and he showed how it could be done when required; but there is no necessity for it, and whether it be even an improvement or not depends on individual musical taste and opinion. For my own part, I prefer to see the band at an opera, rather than hear the sounds come, partially muffled, from an invisible well.

theatres built, as our English theatres are, solely as a money speculation, the first requirement of which is that it should pay. And this consideration shows that the question whether theatres should be in a greater or lesser degree State-supported, is not without its influence on the architectural treatment of the theatre, which can hardly be all that it might be as long as a theatre is built solely as a commercial adventure. It is hardly likely that this condition of things, however, will be changed in England. That every institution must "pay its way" is a persuasion rooted in the national mind, and a State subvention to a theatre would probably be regarded almost universally as an example of that "paternal Government" of which we have such an abhorrence. But there is one thing which the promoters of a new theatre might do. They might be a little less greedy of time; they might go to a first-class architect instead of to a theatre specialist, and at least leave time for the careful study of a design, and for carrying out the decorative treatment of the interior in a really artistic spirit, instead of leaving it to a decoration contractor. And they might perhaps find that part of what they would lose in time they would save in work and material as well as in credit. For one of the crying sins of our theatre architecture is its tawdriness both inside and out; because no time is left to give any consideration to the design in an artistic sense, therefore this is made up for by useless and hastily executed carving outside, and gewgaw decoration inside. The employment of an architect who is an artist would probably lead to a plainer though better-considered treatment; the money generally spent on vulgar profusion would be saved; people would discover that a "gorgeous" interior is not a necessary concomitant of theatrical art; and we might have a chance of seeing theatre architecture characterized by picturesque and expressive qualities and refined taste, instead of being, as it is at present, almost

synonymous with the idea of architectural tawdriness and vulgarity.

There is another class of erection which, though sometimes regarded as purely engineering work, nevertheless comes, or ought to come, under the head of State architecture ; namely, bridges. The object of a bridge, it is true, is in one sense purely utilitarian ; but it is a kind of erection capable of so much architectural beauty, and which has, moreover, so important an effect on the architectural picturesqueness of a city, for good or ill, that its architectural treatment ought always to be taken into consideration as part of the problem. Unfortunately the modern tendency, in this respect, has been decidedly retrograde. In the last century, and in the early part of the present century, we could build bridges which were really works of architectural grandeur or beauty ; as witness such works as London Bridge, Waterloo Bridge, and Kew Bridge. It was no doubt easier to do this at a period when bridges were entirely built of stone. Their monumental character, at all events, was then ensured ; and what with the union of necessarily solid and massive structure in the piers, and the grand curves of the arches by which alone the spaces could be bridged over, it is almost impossible to construct a large stone bridge which shall not be a fine and impressive object. All this has been altered since the modern system of engineering construction has tended so much towards the use of iron and steel in bridge-building. If the piers also are of steel, the broad effect of mass is entirely done away with ; and even if the piers are built of masonry and only the spans of steel, the homogeneous and monumental character of the structure, as a whole, is gone. Still more unfortunately, it has become the practice of modern engineers, where they use stone piers, to aim at making them "handsome," as they imagine, by the introduction of florid ornament, often in the

worst taste, the effect of which is to still further diminish the monumental character of the work. In the old stone bridges little ornament was generally introduced, and that little, as in London and Waterloo bridges, was of a restrained and severe character suitable to the situation. The contrast is remarkable in this respect between the stern yet effective simplicity of London Bridge and the tawdry ornament of Blackfriars Bridge, with its absurd stumpy granite columns carrying nothing but a small balcony. The French, in their modern steel bridges, at all events know better what to do with the piers than this, as they have shown in the "Pont Mirabeau," recently erected at Paris, where the granite piers are kept perfectly plain as far as their architectural treatment is concerned, but are made the basis for a fine allegorical figure, a different one for each pier face, designed by one of the finest sculptors of the day, M. Injalbert. The engineer of the London County Council is now anxious to replace Vauxhall Bridge, a structure with a great deal of character in its details, by a bridge as like Blackfriars Bridge as possible; so that unless those who understand and care about the artistic treatment of bridges have influence enough to prevent this, we shall have another monstrosity carried across the Thames.

A still worse mistake has been made with the Tower Bridge, which the public imagine to be a very fine thing, but which architects and artists regard with loathing, as being, in its external appearance, a gigantic and tawdry sham, the stone towers being really only a skin concealing the steelwork, and actually carried by it, while they are made to appear to support the massive suspension chains carrying the end sections of the bridge, which would pull down the masonry at once if they really had any drag on it. All this foolish work was carried out, at immense expense, from an idea that the naked steel-

work would have been shocking to the eye of taste; whereas in reality the eye of taste would have infinitely preferred it, as being at least genuine and with a certain constructive beauty of its own. Either the bridge should have been built frankly as a steel bridge, or the masonry towers should have been genuine monumental structures actually carrying the high-level bridge and the suspension chains. This could have been perfectly well done in the way shown in the sketch which forms the frontispiece to this book. The suspension chains are of course really attached to the ends of the high-level bridge-girders, which form a tension bar between them; they could not be attached to the stonework, and therefore should not appear to be; the ends of the high-level girders could be carried through the stone towers, resting on roller-beds on the masonry, and the suspension chains visibly attached to them without entering within the masonry at all. The structure would then have been an honest one, and would have been monumental both in appearance and in actual construction.

The question whether the substitution of steel girders for stone arches is really such an economic and structural advantage that it should necessarily be adopted, is one that is worth a little more consideration than it has received. It is true that it admits of the use of longer spans, and consequently less interruption of the waterway, though in a wide river this point is often not of so much importance as is pretended; but it is economic only in a limited sense; the initial cost is less than that of a stone bridge, but the life of the steel work is limited, and it requires constant painting and repair; whereas a well-built and well-founded granite bridge will almost last for ever, and prove a saving at all events to future generations, a point which has been rather overlooked by those who recommend steel bridges on economic grounds.

At all events, it is certain that, whatever be the method and material of construction, a large bridge is so important a national work, and its influence on the architectural effect of a city is so great, that its artistic design ought always to be considered as well as its practical structure ; and, in fact, public bridges ought to be designed under the joint advice of an engineer and an architect, so long at least as engineers continue to entirely neglect the æsthetic element in such a work, as a matter beneath their consideration.

CHAPTER IV.

DOMESTIC ARCHITECTURE.

DOMESTIC or dwelling-house architecture, except on the largest and most palatial scale, does not give opportunity for the grand effects which can be obtained in Church and in State architecture; and yet, if we put aside the quality of monumental grandeur, it has so many points of interest peculiar to itself, that we can hardly regard it as inferior to or less interesting than public architecture; only its interest is of a different nature. It represents the application of architecture to promoting the comfort and adornment of our intimate every-day life; and it is the class of architecture in which there is most room allowed for the indulgence of individual taste and expression. In public architecture we are giving expression to the architectural taste and the practical wants of a community or of a State—an aggregation of persons; and we have therefore to aim at such a form of architectural design as will appear more or less national; we must keep to broad effects and make our architecture as representative as possible; whereas in domestic architecture we have to consider the individual taste of one person (or of one person and his wife—which is sometimes no doubt a cause of difficulty); and there is no reason why, as far as the architect and his client can work together and understand each other, the house should not in such a case be a kind of expression of the mind of its owner—of his tastes, his likings, even of his professional pursuits.

House architecture is a very different thing now, however, from what it has been in any other period. Among dwellings of ancient times, the Roman house came nearest to the modern one in the sense that comfort and architectural effect were to be combined in it as far as possible; but much more attention was paid, even in small houses, to architectural effect than is usually the case now, especially in regard to interior dignity and decoration; and on the other hand the antique notions as to privacy and comfort were widely different from ours. The Roman house was a kind of open affair, in compartments rather than in rooms as we now understand the word. It is true that the entire separation of the women's quarters from the part of the house occupied by the men constituted a special kind of privacy which is not sought for now, and called for special arrangements in planning. It is worth while to notice this, because the whole progress of civilization has had the effect, in domestic architecture, of doing away by degrees with the idea that there must be special provision made for the seclusion of womankind. Even down to the last century the lady's "boudoir" was no mere ornamental adjunct to the plan; it was necessary for her to have an unassailable retreat to retire to after dinner, while the gentlemen got drunk. We may notice that in such descriptions of manners as Scott gives in the novels whose action takes place at a period little before his own time, and within his own knowledge from recollection or description, the ladies pass most of their time alone while the men are hunting or drinking. Now they hunt with the men, and they wait in the drawing-room for them after dinner, for a period which is becoming more and more brief. All these gradual improvements in social habits (for no one will question that they are improvements) affect the planning of dwelling-houses. In the sleeping apartments, it is true, we ask for more seclusion than

before—in the Middle Ages men and women, even strangers to each other, slept in the same room ; but in the modern living apartments there is much less demand for seclusion ; they are common to both sexes, and there is no occasion for special planning to keep the one sex out of the other's way. The sole remnant of the old separation is the smoking-room for the men, and even there the women may come if they like, and often do come ; but it is nevertheless desirable to have it well out of the way of other rooms, in consideration of the members of the family or guests who may dislike smoke, or of the feelings of the lady of the house, who may say that while she likes the smell of cigars very well in its proper place, she does not wish her drawing-room to smell of smoke.

Yet there are many specially modern requirements in house-planning, and there is more importance attached to having everything quite comfortable and convenient than has ever been the case in previous times.

The following may be taken as summing up the principal requirements of a modern house, in regard to comfort and arrangement :—

All the principal apartments must be placed so as to have the best aspect for light and warmth, according to the time of day they will be most in use. Sometimes, in the case of the drawing-room especially, the best aspect may be sacrificed for the sake of getting a specially fine view from the windows ; but this is generally a doubtful good. Sunlight, especially for a room that is to be occupied for a considerable portion of the day, is more important in relation to health and cheerfulness than the finest prospect without it. The drawing-room, however, is the room most open to modifications in consequence of discrepancy between the claims of aspect and prospect. The morning-room, which is occupied at the coldest part of the day,

and (if it be used as breakfast-room) at a time when neither house nor inmates have become thoroughly warmed, should always have an aspect to the morning sun, between east and south-east. In smaller houses, where the dining-room is used for all meals, the same aspect will be desirable, so as to get the sun at breakfast time, in winter especially; while a sunny aspect for other times of the day, such as south and south-west, which brings the sun into it at the middle and end of the day, is bad; in winter the room will be warmed enough by lunch time, and in summer the intrusion of the southern sun at lunch or the western sun at dinner, when people are seated round the table and cannot shift their places, is apt to be disagreeable both in respect of heat and light. The drawing-room is a room in which people can move about and choose their positions more freely, and therefore too much sun is of less consequence there, though too little makes a dull room, in spite of beauty of prospect. The drawing-room, however, ought, where possible, to be placed so as to look two ways, and in that case it should be generally easy to accommodate aspect and prospect more or less. Two rooms there are in the house of which the aspect should be considered fixed according to the law of the Medes and Persians. The kitchen should look always north, both for the best light in cooking and because there will always be warmth enough there in winter, with the constant large fire, and in summer the aspect should obviously be the coolest possible. And the nursery should always look south, whatever be the preferable character of the outlook in other directions; plenty of sunlight is more important for the health and growth of young children than anything else; every mother and doctor will tell the architect that.

The servants' quarters have to be kept separate and shut off from the residential part of the house, but nevertheless

conveniently near at hand, and separate stairs and lines of route must be provided for them to go about their work, so as not to clash with the household or with guests.

Lavatories and water-closets must be arranged so as to be convenient for access and yet not prominent. There are unfortunately as bad blunders made about this matter in large private houses as we frequently find in public buildings. In regard to decency they should be so placed that the entrance and exit to them is concealed from general view, and that nobody need be known to be going to or coming from them. This seems self-evident, considering our English notions as to propriety, but there is an extraordinary want of perception on this point very often in the planning of houses, things being arranged as if the architect had never realized the working of his plan at all. We may find a town house, planned by an eminent architect, in which the hall is used as a billiard-room, and out of one corner of it opens a w.c., supposed to be specially for the use of ladies (that for gentlemen being provided elsewhere); or another (a country mansion of the first importance this time) where one of these necessary apartments was arranged opening out of one corner of the billiard-room, the architect (a very eminent one) having apparently entirely overlooked the fact that, though the billiard-room is in the main a men's room, ladies may come there either to play or to look on at the game; the result in this case being that on one occasion an unfortunate guest was blockaded within this apartment for half the evening by the unexpected advent of his hostess in the billiard-room. Such are the absurd and indecorous situations which may be provided for by planning such apartments of a house without realizing the actualities of everyday life. There is the sanitary question also. A water-closet should be cut off as much as possible from the remainder of the house. I have seen a plan,

very recently, of a large mansion, in which, in two of the best bedrooms, a water-closet was formed out of a corner partitioned off from the bedroom, and opening out of it—a perfectly disgraceful arrangement, even in an inferior house, much more in a large mansion. It may be a question whether, in mansions of large size, and where there are many persons to provide for, all the water-closets (along with baths and lavatories) should not be grouped in a tower partially disconnected from the house, as is required in workhouses, asylums, etc. That which is admittedly the most sanitary arrangement for one form of building inhabited by a considerable number of persons is the most sanitary for another. Such a tower could be planned so that men-servants could have access to it on one floor, the gentlemen on another floor, ladies on another, and women-servants on another. The difficulty would be to prevent the erection being too prominent or proclaiming its object too clearly from outside; but this is not insuperable with a little management. In any case it is always desirable, in order to simplify drainage, to get water-closets in contiguity with or over each other, even though they may be completely separated in every other sense. On the other hand, not even in the smallest house should the barbarous arrangement be admitted of combining bath and water-closet in one room. Such a thing ought to be unheard of in the present day; yet I have seen two plans of new houses, very recently, both by architects, which sinned in this manner.

Drainage must be without a flaw. Everything that is now known as to the best methods of drainage is accessible to the student in books specially devoted to the subject; it cannot be treated of in detail here, only it should be borne in mind that in a house where people are passing their whole lives, night and day, the complete removal of all that can contaminate the air

and be a danger to health is even more important than in the case of public buildings where people do not live, and where they generally only meet for a short time. No amount of picturesqueness will atone for defects in the drains. In the country the additional question will come in of how the drainage is to be disposed of; but that can hardly be said to come into the subject of architecture, which we are here considering, whether in a town or country house. An automatic flushing tank at the head of the drain system, and flushed by the waste water from sinks, wash basins, etc., is a highly desirable addition.

In a country house the supply of water will be a special consideration, sometimes a considerable difficulty, and will necessitate a storage cistern in the upper part of the house. Rainwater should also be stored, the first washings of the roofs being run off by a "separator."

If a country house is lighted by electric light, an accumulator room is required. The generating station will of course be a separate outbuilding.

Rooms should be capable of ventilation by special means when the season is such that windows cannot be kept open for long. Clients seldom demand this, but they should be encouraged to think of it. Sitting-rooms are best ventilated by the admission of warmed air from the back of the fireplace or over a ventilating coil or radiator. Bedrooms can be ventilated by the simple arrangement of the raised lower sash with a closing board at the foot. In summer, for a private house, open windows are the best form of ventilation, and no other need be used.

What architectural expression are we to give to all this? The house is a collection of comparatively small rooms, some of which are required for residence or reception, some as sleeping apartments, some as service rooms for carrying on the work of

the house—cooking, cleaning, etc. ; and one section of the house, the hall and staircase, will have a function of its own as a general passage-way and common centre to the remainder. Whatever the general architectural treatment, there are three departments in a house plan which should always be distinctly and recognizably marked on the exterior design : the entrance door, the staircase, and the sitting-rooms. If the staircase comes up to the exterior wall, it should have a special window which marks it out as something more than a mere room ; a window of different size and shape from the rest and on a different level, and showing that it is independent of floors. If the staircase is central and lighted from the top, a lantern feature above should mark its position as well as give it dignity internally ; a flat skylight to such a staircase is a mean way of finishing it, whether in regard to interior or exterior. Even where the house is a comparatively humble one and the sitting-rooms small and unpretending, there should be no difficulty in distinguishing their position from a certain degree of emphasis and dignity given to their windows, either by larger size or by architectural embellishment.

As to the general treatment of the whole building, there are two or three systems or principles which may be employed. (1) We may include all the various apartments in one symmetrical or nearly symmetrical block—the favourite method of the Georgian era, which has been a good deal revived lately, more through the influence of association than on any other grounds. (2) We may separate the residential portion, the superior portions visibly from the service portion, making them two separate and distinct blocks of contrasted treatment. Or (3) we can make the whole building appear outwardly like the putting together of a number of various apartments of different shapes and sizes —what is called the "picturesque" type of house. If this latter

system be adopted, it is essential that there should be one bold and dominant feature around which the other portions may seem to congregate, and by which they may be kept in their place. This will generally be a staircase block, or a low tower marking the entrance. But unless there is some such dominating feature in the irregular type of house, the whole thing will seem going to pieces.

The irregular or "picturesque" type of house is only suited to a country site; it is quite out of place in a town, where a house must necessarily be confined within strict boundaries as to party walls and frontage line. But domestic architecture in the country has more freedom of choice and development, and may either be treated symmetrically on the block system (especially if its symmetrical treatment is continued and supported in that of the garden around it), or irregularly on the picturesque system.

Dwelling houses in the country may be roughly classed under three heads—the "mansion," the "house," and the "cottage." The term "mansion," which both in prose and poetry has come to be currently accepted as implying a specially large and dignified type of house,* we will take to imply a private dwelling house in which something of state is combined with private life, in which the principal rooms are reception-rooms rather than sitting-rooms, and which rises to a certain sumptuousness in scale and cost; the point is not very easily definable, but one can hardly apply the term mansion to anything that can be built for less than £20,000. The real distinction

* There is some etymological basis for the distinction; as "mansion" (from Latin *maneo*) implies an abiding-place, a place where you would think it worth while to remain permanently, while "house" means originally only "a covering;" "hose" is another form of the same word. But the fact is that in this, as in other cases, words derived from Latin are accepted generally as more pompous in sound than those derived from Saxon or Teutonic roots.

of the mansion, however, is that just mentioned; it must be a house in which something more than ordinary private life is to be provided for. The distinction is important as affecting the architectural treatment of the building. In a mansion properly so called the segregation of the offices and more practical portions of the building seems inevitable; though, as we shall have occasion to notice, this was not always so. Under the class "house" we may include those dwellings in which spaciousness, comfort, and a certain degree of dignity are sought for, but without the element of state. The "cottage" is the class of dwelling which aims at comfort on a small scale, without dignity or spaciousness, and in which a picturesque and rather playful architectural treatment is the most suitable.

Before considering each class separately, we may note some points which concern all of them. The plan of each is to be studied in relation to the points of the compass. The frequent omission of any indication of the compass direction, in plans of houses prepared for publication, is a curious indication of the frequent want of thought in regard to this subject among architects. A plan of a house without the north point inserted is as incomplete as a plan without a scale; an essential condition for judging the plan has been omitted. The placing of the drawing-room and dining-room windows with the same frontage, so frequently seen in the plans of small houses, is a mistake—for reasons already given. They ought not to front the same way; what suits the one does not suit the other. Long corridors and passages should be avoided in the house or cottage; they are waste of room and are an indication of defective planning; in a state mansion they may be allowable or even admirable in effect; one of the characteristics of the mansion is that the plan should have superfluous space at its disposal. Sitting-rooms should not overlook the entrance door or the approach to it, at

all events not prominently; it may indeed be useful to the owners of the house to see who is coming up to the door in time to decide whether to be "at home" or not, but it is embarrassing to visitors to drive or walk up to the door with the feeling that they are being studied and criticised during the transit. In every class of house, from mansion to cottage, the architectural design should be studied in relation to the site; not merely in regard to the practical questions of level and gradient, but in regard to placing it in the most effective manner in relation to the main features of the site. As far as colour and texture are concerned, the building materials indigenous to the district will harmonize best with the landscape. If a house is to be seen in combination with trees, study simplicity, mass, and horizontality of line; the building should contrast with the trees, not compete with them. In a low situation, a lofty house is demanded; in a lofty situation, a low and solid-looking design: and if the house stands on a slope, the highest portion of it should rise from the lower end of the slope. Seaside houses should be essentially solid and rock-like in character, to appear as having power to withstand the assaults of storm in an exposed situation. Some American architects appear to understand this very well.

Architectural expression in a dwelling-house depends most on the treatment of the windows, except in a large mansion, where one may aim at a more grandiose effect by a more prominently marked and decisive architectural treatment. In smaller houses a playful use of columnar features on a small scale, in one or other portion of an interior, is often effective by contrast, and is a very favourite fashion now, though this kind of resource is sometimes apt to look rather like an affectation. Variation of colour, tone, and texture produced by the use of two or more different materials for different parts of the walling, is a great source of individual and picturesque

expression in a house, and one which does not receive sufficient attention. The introduction of highly coloured materials, such as ornamental tiles, which the French are so fond of in what they call *maisons de campagne*, is detestable in a country house, and a sign of the worst taste; but the more quiet and subdued distinction of colour produced by the use, for instance, of two different stones, may often have a very pleasing effect. Half-timber work, in the way in which it is generally used, is a mere affectation; the construction is never really a timber one, but only timber applied to the outside of stone or brick walls to imitate a form of building which was formerly used where timber was easier or cheaper to get at than stone or brick. Its employment on the face of a wall, for show, is only an archæological anachronism.

FIG. 86.—A PRETENTIOUS HOUSE.

Everything like pretentiousness of effect is to be avoided in a dwelling-house, large or small. A mansion may be dignified, costly in material, sumptuous in its largeness and massiveness of structure, but not pretentious or as if striving to attract notice. A gentleman's private house, like his manner and conversation, should be somewhat reserved and modest, reticent towards strangers. Solid dignity in a house is one thing, pretentiousness is another. Fig. 86, a house on the lake shore at Chicago, is a typical example of a pretentious house, and may usefully be studied as a warning.

The curt and pithy apophthegm with which Bacon commences his famous essay "On Building"—"Houses are built to live in, and not to look on"—is true enough in a broad sense, and as a protest against the neglect of practical planning in favour of mere architectural effect—a protest very much called for in his day, when the building of great mansions mainly for show and state was a kind of passion in which the leading families of the time endeavoured to out-vie each other, and sometimes, in their extravagant outlay on the building, left themselves with no adequate means for keeping it up. Yet the maxim must be taken *cum grano*, especially in regard to that largest class of dwelling which we have distinguished as the "mansion." Convenience and commodiousness of plan are the first consideration, no doubt—the proper basis of the whole. But houses of the highest class are, to some extent, built "to look on," or should be. It is rather a poor kind of ambition for the founder of a great residence to think only of interior comfort in the house, and not to make an effort to produce something of architectural grandeur and effectiveness (which is quite different from pretentiousness) on the exterior. In the glorious days of Vanbrugh and his compeers the passion for external dignity and palatial effect, and for grand suites of reception-rooms, was carried to excess, and everything else was sacrificed to it. At Blenheim the chapel even balances the kitchen in the plan and elevation. Seaton Delaval (Fig. 87) is a characteristic example on a smaller scale. Here we have a large colonnaded courtyard, the colonnade masking the servants' wing and stable wing on either hand, leading up to a great rusticated mass of building with a lofty flight of steps to the entrance door, enclosing on the ground floor only two great halls and two rooms, with turret recesses at the angles, and one hardly sees how the bedrooms above could be arranged,

except with entire disregard to the architectural lines of the structure; and yet it is impossible to deny that there is some-

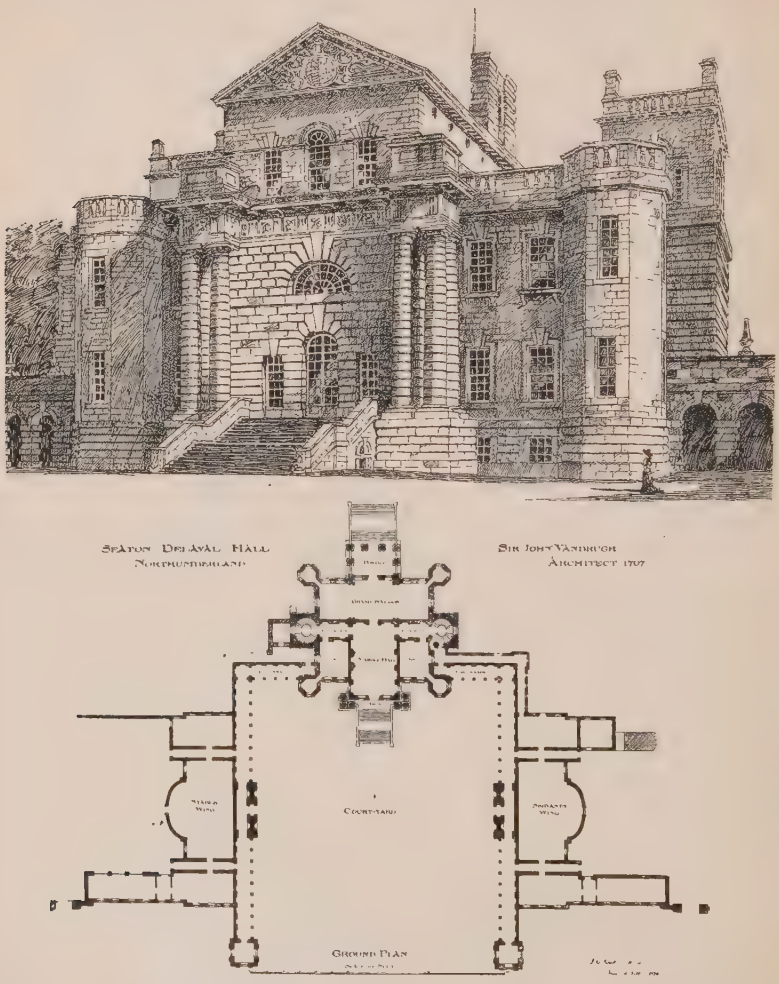


FIG. 87.—SEATON DELAVAL (VANBRUGH). (FROM A DRAWING BY MR. J. W. TWIST.)

thing exceedingly imposing in this powerful mass of building,

with its great flight of steps up to the entrance; something which seems worthy of the residential seat of an old family, worthy too of the high-sounding romantic name of the house, which might have figured in Scott's verse as aptly as "Dalton Tower," or any other of the proper names which adorn his minstrelsy.* Have we not lost something in the modern mansion in losing sight of this kind of effort at architectural dignity and power? Is it not possible at least to combine such grandeur of architectural expression with a greater convenience of plan?

Bacon evidently had this in his mind in some further passages in his Essay on Building. The question of servants' quarters he indeed appears to dismiss very summarily: "As for offices, let them stand at a distance, with some low galleries to pass from them to the palace itself." It may be presumed that he used the word "offices" as comprising all the necessary practical portions of a building, though he does refer afterwards to the possibility of the servants' dining-room being in the basement, as an objection against the use of a central open staircase area, "for in that case you shall have the servants' dinner after your own, for the steam of it will come up as in a tunnel," a remark probably prompted by personal experience in some great house of the period. The arrangement of the servants' quarters at Seaton Delaval exactly answers to Bacon's recommendation, but it would be thought most inconveniently distant for service in a modern house. To come to the residential part of the mansion, however, Bacon's idea of the way to harmonize convenience with effect is worth quoting; it is not only characteristic of his day, but it is the system

* "And as I rode by Dalton Tower,
Beneath the turrets high,
A maiden on the castle wall
Was singing merrily."

on which many great houses have really been laid out, almost down to our own day:

"First, therefore, I say, you cannot have a perfect palace, except you have two several sides; a side for the banquet, as is spoken of in the book of Esther, and a side for the household: the one for feasts and triumphs, the other for dwelling. I understand these sides to be not only returns, but parts of the front, and to be uniform without, though severally partitioned within, and to be on both sides of a great and stately tower in the midst of the front, that as it were joineth them together on either hand."

And he goes on to say that on the one side he would have only one goodly room forty feet high, and on the other side the hall and chapel, and a winter and summer parlour; and we gather, further on, that the lower rooms here should be sixteen feet high. He evidently intends, therefore, to balance a one-storied block on one side of the centre, with a two-storied block on the other, the two sides being uniformly treated—the one side in one large hall, the other side divided up into several apartments, though still not very small ones. This would never satisfy the modern architectural sense, but it would be perfectly possible to adopt the main features of Bacon's plan, and to treat the two sides so that they should architecturally balance each other without displaying on the exterior such a rigid uniformity as would constitute an architectural falsehood.

It is in reconciling the opposing demands of uniformity and convenience, however, that the great architectural *crux* of the mansion consists; for the highest, most stately, most dignified form of mansion is not to be attained without a more or less symmetrical treatment. That is just what people require to be reminded of at present. The element of stateliness in a great house seems in danger of being lost; it is almost an assumed thing that such a house is now planned on the "rambling" system, making an irregular conglomeration of parts which, as

seen externally, appear to have only an accidental relation to each other. This is picturesque, no doubt; it is what people call more "homely" or "homelike," but it is certainly not equal in impressive dignity to the old type of formal mansion. The chief difficulties we have to contend with in the formal or symmetrical plan are the position of the entrance and the placing of minor rooms in connection with more important ones. In the formal mansion we are almost bound to have the entrance central, so that it is pretty certain to be overlooked from one or other of the leading rooms (though one can obviate

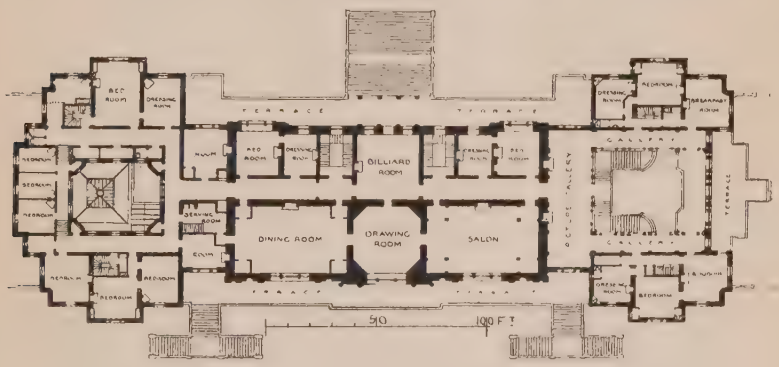


FIG. 88.—A "SYMMETRICAL" MANSION PLAN.

this to some extent by planting, at least as far as the drive up is concerned); in the rambling mansion one can have the entrance at an angle. The difficulties with rooms are illustrated in the plan shown in Fig. 88, an actual example, which I take to be an old centre with modern wings added. The two wings are absolutely symmetrical in architectural treatment, yet at one end the recessed junction shows the ends of a picture-gallery; at the other end it is only occupied by small rooms of evidently inferior status; while the windows and architectural design generally are identical. The right-hand wing, again,

evidently contains, grouped around the new staircase, the best bedrooms of the house; the left-hand wing contains the inferior bedrooms; but the exterior architecture matches exactly. That is the symmetrical treatment carried out in its purity. It has its merits where a grandiose effect is specially desired, but it is certainly rather a sham way of designing, and one is inclined to ask whether it would not have been possible to balance the general masses of the two wings, while varying their treatment in detail. In the central portion of the house will be seen a remnant of the old nonchalant system of making one room a passage to another—we can no longer allow it with bedrooms, but the billiard-room is here a passage-room, cutting the corridor in two. This, however, is of little practical consequence.

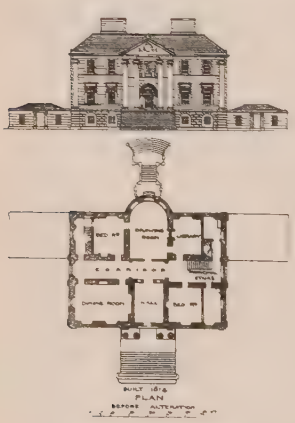


FIG. 89.—JARDINE HALL (ORIGINAL STATE).

An instructive and interesting plan is that on which Mr. E. J. May has remodelled an old house in Dumfriesshire, one of the old Scottish mansions contained within a single rectangular block of walling, with some low out-buildings symmetrically flanking it. Fig. 89 shows, on a small scale, the original house; Fig. 90 the modern remodelling of it. Here also the additions are made on each side of the old house as a centre, but by treating them partly as returned wings the architect has been enabled to vary their disposition as far as the varied purposes of the rooms require, without destroying the symmetrical design of the front; and with the exceedingly formal architecture of the old house retained as the centre, it would have been impossible to have introduced anything but a symmetrical treatment of

the additions to the main front. The architect has, however, ventured to give just that degree of freedom which I have

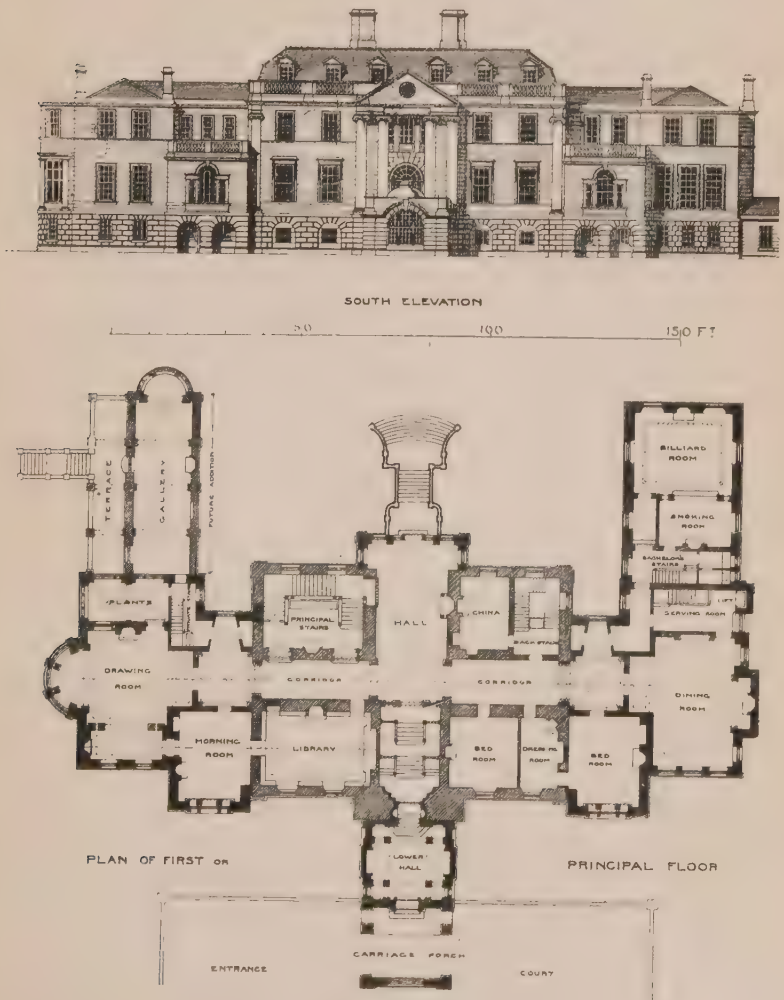


FIG. 90.—JARDINE HALL, AS REMODELLED (MR. E. J. MAY). (THE PORTIONS SHADED BLACK SHOW THE ADDITIONS.)

already suggested might be adopted in such cases, where the different destinations of the rooms on either side of the centre required it, in a different grouping of the windows—the dining-room on the right having three large windows, which form its principal light; while the drawing-room, in the corresponding portion on the left wing, which derives its main light from the bay window facing west, has on the front only two windows of smaller dimensions; and there is a similar degree of variation in the upper windows on each side, yet the general character of a symmetrical front is sufficiently preserved. It may be observed that the main light looking south is not the best light for a dining-room; but it is not easy to see how it could be arranged otherwise in this case, as putting the fireplace at the end of the room is not a good arrangement for a large dining-room. One object of the alterations was, admittedly, "to get rid of the awkward flight of steps at the principal entrance." This has been done by transferring the greater portion of the steps to the interior, in the old hall, with six steps connecting this with the new "lower hall," which is built out, and in front of which is a *porte-cochère*. This is an "improvement" demanded, apparently, by modern ideas of comfort in arriving and alighting at a house; yet one cannot help remarking here, as at Seaton Delaval, how much finer and more imposing is the effect of the exterior flight of steps up to the entrance; and it is a question whether the momentary gain in the comfort of the visitor, by getting the steps under cover, is entirely a compensation for destroying their architectural effect and introducing that always awkward excrescence, a *porte-cochère*. Those who have the good fortune to possess an old and dignified-looking mansion with its flight of steps up to the entrance may well be asked to pause before they spoil the effect of the house for the sake of a modern, rather exaggerated, demand for "cover." It may be said that

the drawing-room and dining-room, in this plan, are at a great distance from each other. This would probably have been otherwise arranged had the house been an entirely new one, but, even as it is, this is just one of those points which may be admitted in a house of this size and class. The promenade of 110 feet from the drawing-room to the dining-room door is not ineffective, and at least serves to show the guests the extent of the house. The opening of bedrooms direct out of this corridor is no doubt a serious defect, one of those things forced upon one by the rigid lines of an old-fashioned, symmetrical house. The entry to the new bedroom, close to the dining-room door, might at least have been a little less marked. And one may add that, as there is the long state corridor from drawing-room to dining-room, it would have been worth while to have placed the dining-room fireplace recess centrally with the axial line of the corridor, so as to secure a complete vista when both doors were opened.

This, which is an addition to a formal mansion, exhibits both some of the fine points and some of the disadvantages which are incidental to the employment of the formal and symmetrical type of plan ; a type which, in entirely new houses, seems for the present to be almost discarded ; we rarely see anything now built in the shape of a new mansion, except of the "rambling" type. Yet it would surely be possible, with due thought and consideration, to plan a mansion of the symmetrical type without getting bedrooms opening out of the main corridor of the entertaining rooms, or making a back-stairs balance a sculpture gallery in the elevation ; and I would urge that those who can afford to build a great house, to be an heir-loom for generations, should turn their thoughts more towards the possibility of realizing this most dignified and stately type of domestic architecture, without sacrificing internal fitness,

propriety, and convenience. I certainly think it may be done; and it is well worth trying.

As an example, at least, of the attempt, I give the plan and elevation of a proposed mansion of this character (Fig. 91), in sketch form only, in which a stately symmetry is aimed at while treating the elevation in such a manner as to express the internal arrangement more or less, and not leave it a mere architectural mask for an interior which does not correspond to it. The general mass of the façade on each side of the centre is symmetrical, but the treatment of the details is distinct; the dining-room on the right, facing towards the entrance front, with an easterly aspect, the drawing-room on the left having its back on it, and facing in the opposite direction; the two hence giving rise to a perfectly distinct treatment. The elliptical central hall is not the most convenient of shapes on plan, but it is employed here for the sake of a special effect. The servants' quarters and offices form a separate block at right angles to the state block, and connected with it at the angle; and the latrines and bath rooms of the whole establishment are all combined in one tower or turret placed near the re-entering angle of the two blocks, divided up into separate groups with a separate entrance on each floor.

The existence of a large central hall, rising the whole height of the building, is almost a *sine quâ non* in the symmetrical type of mansion; it may or may not contain the stairs, according as it is proposed to give to these latter a very spacious and grandiose effect or not; but, unless this is the object, it may be said that a hall containing in itself a general staircase is, on the whole, more suitable to a public building than to a private mansion, both as a matter of expression and of convenience in planning. In a public building the grand staircase generally is meant to lead to one special point, and can be so arranged

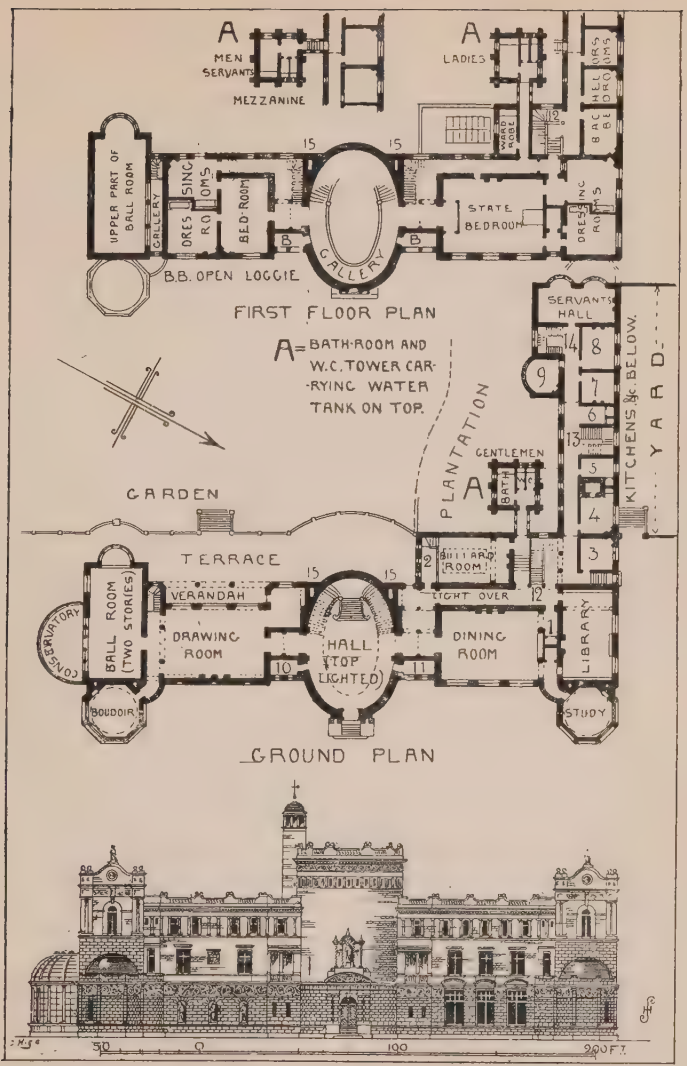


FIG. 91.—PROPOSED MANSION: BY THE AUTHOR. (SYMMETRICAL SYSTEM WITH MODIFICATION IN DETAIL.)

1. Serving-lift from kitchen.
2. Gallery of billiard-room.
3. Gun-room.
4. Butler's pantry.
5. Glass and china.
6. Lifts from basement.
7. Stores.
8. Workroom.
9. Housekeeper.
10. Hall porter.
11. Cloaks, etc.
12. Bachelors' stairs.
13. Men-servants' stairs.
14. Women-servants' stairs.
15. Collected flues.

without much difficulty; in a private dwelling the staircase is rather intended to lead to a gallery giving all-round communication to a number of rooms to which access is equally required, and this is more easy to arrange for if the stairs themselves are kept out of the main hall, unless where there is room for a

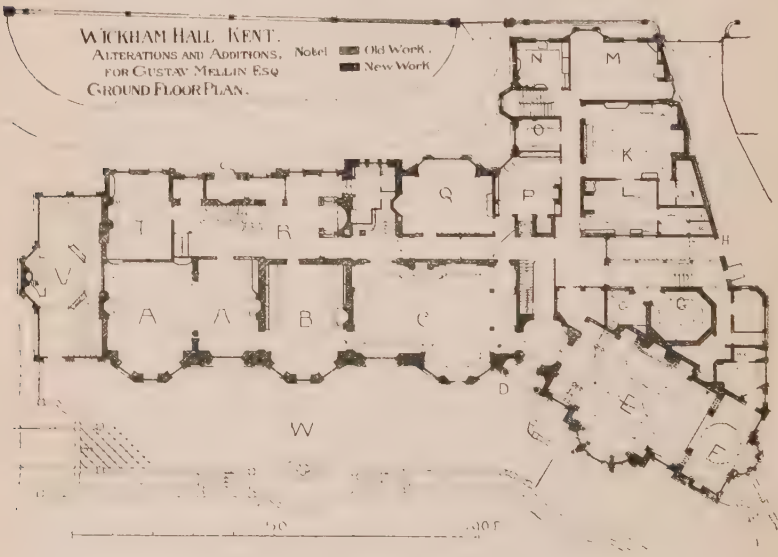


FIG. 92.—PLAN OF WICKHAM HALL (MR. MILLARD).

A. Drawing-room.
B. Library.
C. Dining-room.
D. Garden entrance.
E. Billiard-room.
F. Smoking-room.
G. Dairy (top light).
H. Trade entrance.
K. Kitchen (top light).
L. Scullery (do.).
M. Servants' hall.
N. Housekeeper.
O. Stores.
P. Butler.
Q. Breakfast-room.
R. Hall.
S. Main entrance.
T. Own room.
V. Conservatory.
W. Terrace.

complete loggia all round the stairs on the upper floor; and that can only be the case in the very largest or actually palatial scale of mansion, which almost takes the character of a public building.

As an example of the "rambling" plan in the case of additions to an existing house of moderate size, but enlarged

to the dimensions of a mansion, that of Wickham Hall, by Mr. Millard (Fig. 92), is worth attention for the manner in which the old and new portions of the house are connected, and the ingenious planning of the canted end. The architectural style was set by the old portion of the house, and could not be avoided. No north point, unfortunately, is given, but I believe the terrace and the principal rooms face nearly north, which is

FIG. 93.—"HURSTBOURNE," HANTS (MESSRS. BEESTON AND BURMESTER).

1. Hall and staircase.
2. Dining-room.
3. Smoking-room.
4. Gallery.
5. Drawing-room.
6. Library.
7. Morning-room.
8. Private dining-room.
9. Study.
10. Boudoir.
11. Kitchen.
12. Scullery.
13. Servants' hall.
14. Housekeeper.
15. Pantry.
16. Serving-room.

not very cheerful; but the difficulty of dealing with additions to an existing house must be borne in mind; in this case the drawing-room and library, part of the old house, settled the orientation. An example of the rambling type in an entirely new mansion is given in "Hurstbourne" by Messrs. Beeston and Burmester (Fig. 93), a peculiar and rather disjointed but clever

plan, in which a fine effect is produced by the sweep of the curved portion of the garden front ending in the two turrets, though this portion has perhaps a little too much the appearance of being the main entrance instead of the garden entrance. The point is, however, that the architects have succeeded in combining a certain stateliness of effect with the rambling type of plan.

FIG. 94.—"CRAGSIDE" (MR. NORMAN SHAW, R.A.).

The well-known house, "Cragside" (Fig. 94), built by Mr. Norman Shaw for Lord Armstrong, forms one of the most typical examples of a school of modern English domestic architecture which may almost be said to have been invented by Mr. Shaw, who has had in this respect many imitators. It represents a style of domestic architecture which depends for

its effect mainly on irregular picturesque grouping of the masses, and on the arrangement of the windows; and as seen in such a house as "Cragside" it may be said to represent the application to a large mansion of a style of architectural design which might be equally applicable to a small house or cottage where the only possible architectural effect would be that of the picturesque. The great merit of the style of architectural treatment represented here is the entire absence of the horrible quality of pretentiousness; a merit which consists in a great measure in the architectural reserve or restraint shown in the design; no adventitious ornament being introduced, and no crowning features but the simple roofing. This kind of merit may perhaps be more fully realized by comparison with the bit of another modern house shown in Fig. 95, which is a rather typical specimen of the modern pretentious dwelling; a house which one would expect to find inhabited by a *nouveau riche*, except that of late the *nouveaux riches* have grown so knowing that they will sometimes consciously adopt the quiet and unassuming style of domestic architecture, which they have discovered represents the taste of an older class of society, just as they will desire to rent a small house in Mayfair rather than a big one in Portland Place. In this example, however, the Mansard roof and the metal crestings speak volumes. The style represented by "Cragside" has also undoubtedly the quality of homeliness, and if it is desired that the prominent characteristic of a dwelling, however large, should be that of homeliness, it is here doubtless attained. Yet one cannot help feeling that something is lost in applying to a great house a style which would be

FIG. 95.—THE TURRETS OF THE *nouveau riche*.

equally applicable to a cottage—which, in fact, appears to be only the cottage developed and enlarged. As already observed, there may be dignity and nobility of effect without pretentiousness. There are other good qualities, but not dignity and nobility, in the modern picturesque as represented even in so good an example as "Cragside," and others by the same eminent architect. We have got used to it of late; but just turn back for a moment from Cragside to Seaton Delaval. Surely one may say, "How are the mighty fallen!" The modern example is, no doubt, the more comfortably planned house, but in the matter of architectural dignity it is simply crushed by comparison. And I maintain that Seaton Delaval is not "pretentious;" it has a much higher quality—it is grand; and surely the loss of this element of grandeur in great houses is something to be deplored.

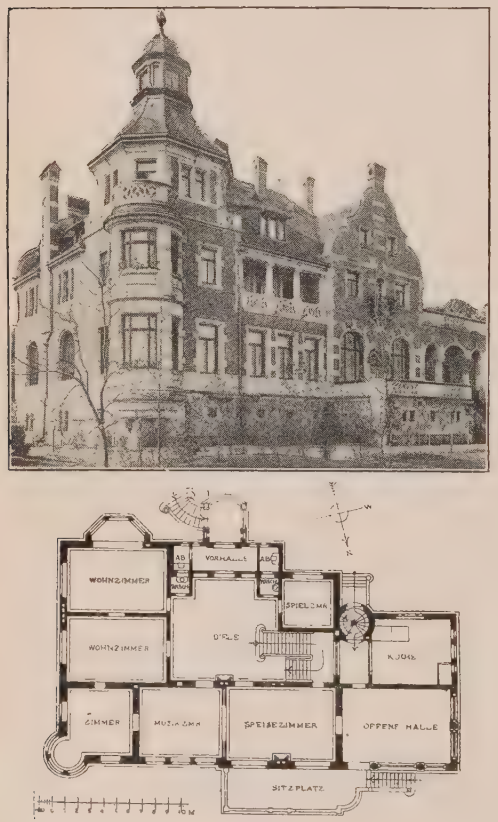


FIG. 96.—HOUSE NEAR DRESDEN.

Leaving the "mansion" for the "house," let us look at some of the various methods of treatment which modern architecture suggests in the larger class of ordinary dwelling-house. We shall find that our continental neighbours are on the whole much more naïve than we are in the matter of plan, while we

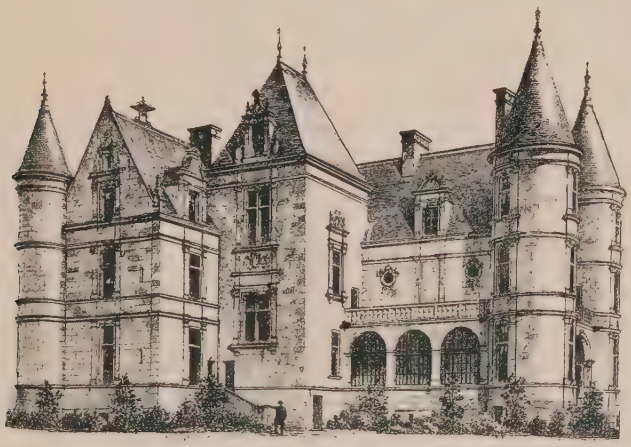
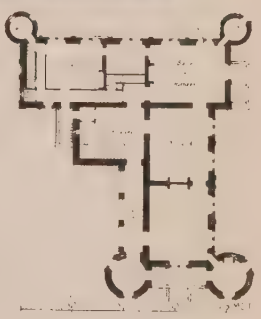


FIG. 97.—A MODERN-ANTIQUE FRENCH CHÂTEAU (MM. BOILEAU AND ROGUET).



show in the same respect less variety and inventiveness than the Americans. German houses tend to be almost always pretentious in architectural style, but often exceedingly simple in planning. A suburban residence at Dresden (Fig. 96) is an example of both qualities. Look at the curiously naïve arrangement of the rooms, all opening into each other and out of the square central hall, out of which open also unconcernedly the two lavatories, in the sight of all the sitting-room doors. The treatment of aspect is the most singular of all; according to the compass on the plan the dining-room and music-room face

north, the two other principal sitting-rooms east, the kitchen and entrance south. Fig. 97 gives the view and plan of a modern French château in the old château style, and with a plan which, to English eyes, seems simply no plan at all, with a long passage taken off the outside of the house. Fig. 98, however, part of the plan of a modern house quite recently erected, shows that in large English houses we can sometimes show as many mistakes with an apparently ingeniously elaborated plan. The windows of the servants' hall overlook the approach to the front door. The drawing-room is ruined in effect by the protrusion into it of the projecting promontory at A, making a narrow neck in the room just opposite the bay window; the lavatory opens nakedly out of the hall close to the dining-room door and immediately facing the drawing-room door. Fig. 99 is a modern American house, of which I have not been able to get a plan; it is considered to be one of the best of the late R. Morris Hunt's houses, and the student may find it useful to consider within himself what it is which makes this house look so strangely like a school or charitable institution, or some establishment of kindred nature. It is perhaps mainly that arcaded portico between the two symmetrical

FIG. 98.—A PIECE OF BAD HOUSE-PLANNING.

1. Drawing-room; awkward angle jutting into room opposite bay-window.
2. Dining-room.
3. Lavatory and w. c.; close to dining-room door and openly facing hall and staircase and drawing-room door.
4. Hall.
5. Vestibule.
6. Servants' hall; overlooking approach to front door.
7. Kitchen; only route to dining-room past lavatory door; guest who has been washing hands before dinner runs against servants carrying in dinner.
8. Front door.
9. Butler's pantry.

wings which gives it this "charitable institution" character; the entry is not like the entry to a private house. Mr. Belcher's "Endalls Manor" (Fig. 100) is a very good example of what may be called the ultra-rambling style of house design, and illustrates what has been previously remarked in regard to the necessity, in such a case, of having a solid feature to dominate the rest; without the solid mass of brick tower this

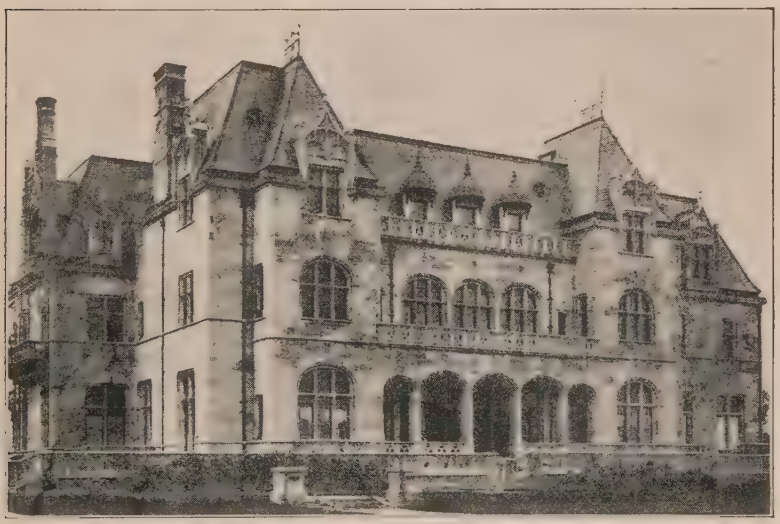


FIG. 99.—AN AMERICAN MANSION (THE LATE R. M. HUNT).
(House putting on semblance of a public building.)

house would seem all tumbling to pieces, but the tower forms an anchorage and central abutment for the lighter portions. This kind of treatment, a collection of cottage-like slices of building, partially half-timbered, resting on a solid centre, is much in favour at present, and is undoubtedly picturesque, but I cannot help thinking that after the fashion of it has got a little worn it will be recognized that it is rather an artificial and cooked form of picturesqueness.

Some examples of houses on a smaller scale may be here mentioned, each of which is typical of a class, of one manner of architecturally treating the dwelling. Of these Fig. 101, "Bullers Wood," represents a return to what may be called the old English type of country house, notable for its extreme simplicity of treatment; a type which Mr. Ernest Newton, the architect of the example given here, and of many others equally good, has been chiefly instrumental in reviving, and in regard to

FIG. 100.—THE "PICTURESQUE" TYPE: "ENDALLS MANOR" (MR. BELCHER).

which he has found many imitators. With the exception of the strongly defined cornice, there are hardly any of what are commonly called "architectural features" in these houses; they have the appearance not only of homely simplicity but of economical construction, though in fact the object, in Mr. Newton's houses at all events, is not so much to secure economy as to spend whatever money is available on objects which he considers more important than outside architectural

show—on good materials, solid construction, and interior comfort and effect. When the sum to be expended is limited in proportion to the extent of the house, this is no doubt a very sound principle, carrying out Bacon's motto in regard to houses being built "to live in and not to look at;" and Mr. Newton and some of his best followers have usually contrived, in spite

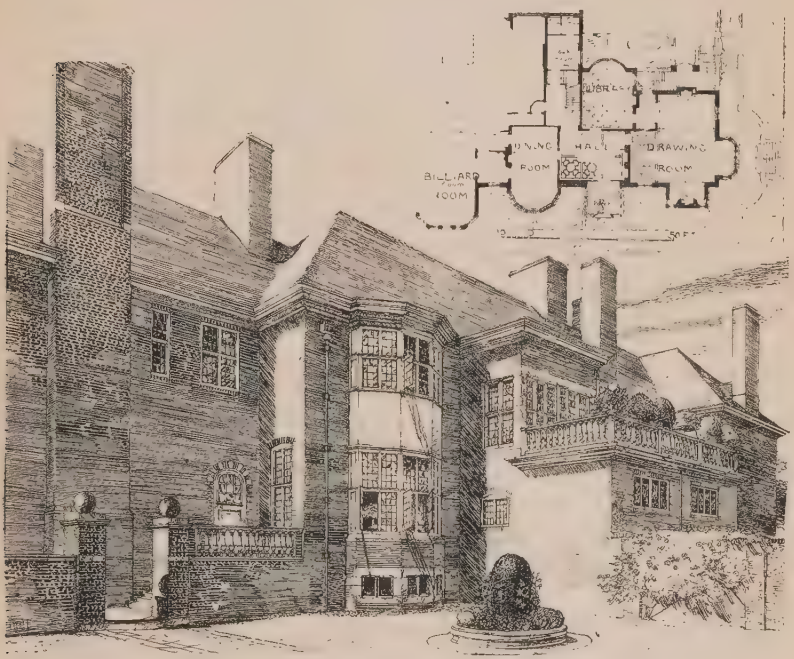


FIG. 101.—"BULLERS WOOD" (MR. ERNEST NEWTON).

of simplicity of treatment, to give a certain amount of character to such houses, with the additional praise of entirely avoiding the charge of pretentiousness and affectation, the worst sins against taste that can be committed in the design of a house. When, however, this excessive plainness of treatment is adopted, as an object in itself, in cases where there is no need for any

economical considerations, it also tends to become a kind of architectural *shibboleth*, followed for the sake of fashion rather than of architectural conviction. In such cases this very simplicity becomes in its turn a kind of affectation, though not of the most disagreeable kind; an exaggerated simplicity, the affectation of not being affected; insomuch that an eminent architect professed to feel it a compliment that one of his houses should have been taken to be "only a builder's house." This is pursuing simplicity to an extreme—voluntarily throwing away the chances of imparting architectural grace and refinement to a dwelling; and it will go the way of other fashions, in its own time.

Anthony Trollope has left on record, in one of his novels, his conviction that, whatever might be said against stone-mullioned windows on the score of convenience (or inconvenience), no other form of domestic window had so much promoted the happiness of life. And there is some truth in this. The advantage of the mullioned window in an architectural sense, and as seen from the exterior, is that it continues the line of the wall-plane over the window, thus connecting it with the rest of the architecture, instead of leaving the window a mere blank expressionless opening. Seen from the interior, it has in another sense the same kind of value; it gives a sense of seclusion and shelter which no other form of window gives. The supposed inconvenience of it exists only so long as the clumsy and barbarous arrangement of the sash window, with lines and weights working in a hollow built-up wooden casing, is adhered to. As long as this is considered a necessary expedient, the mass of wooden casing in the rear of each mullion forms an ugly and unsightly excrescence behind the mullion, blocking out the light and making the mullion seem clumsy and heavy from the interior. This engineering of "boxings"

and "casings" for the weights to work in is one of the house-building superstitions which ought to be eradicated, whether with mullioned windows or others. It introduces a quantity of unnecessary and flimsy cradling of wood, with inaccessible hollow spaces behind it—inaccessible except by taking the whole thing to pieces — which harbour dirt and insects, and are quite at variance with the idea of solid and sanitary construction. It is totally unnecessary. If vertically sliding sashes are specially desired, there are other means of working them, without this bandbox apparatus of hollow casings and weights. But in the present day casement windows opening on hinges,

FIG. 102.—TUTOR'S HOUSE, OXFORD (MR. T. G. JACKSON, R.A.).

and hung in solid frames, can be made as water-tight and weather-tight as any other form of window; and the weight-and-pulley window with its boxes ought to be abandoned as a thing totally unstructural and unarchitectural.

Figs. 102 and 103 may be taken as favourable examples of what may be called respectively the sophisticated and the unsophisticated types of mullioned house. The former, a house by Mr. T. G. Jackson, is a solid and rather highly finished house design, based on Elizabethan precedents, though there is a sufficiently modern touch about it. This is a house for a college

tutor, and the manner in which the study is put in communication with the drawing-room, and yet entirely cut off from it, by the little connecting lobby or passage, is a nice point in the plan, and makes, in a natural way, a picturesque feature in the exterior. Fig. 103, by Mr. E. J. May, is an addition to an old house, Kirklevington Grange, the older portions contiguous to the additions being shaded on the plan. This is an exceedingly quiet-looking house erected in a pre-eminently stone district, and with a pleasing simplicity both of design and plan. As was often the fashion in old English country houses, the garden

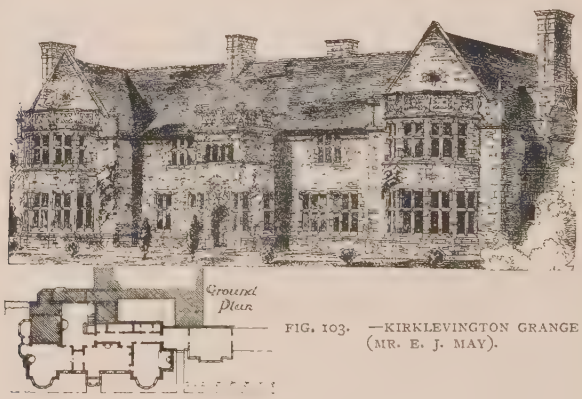


FIG. 103. —KIRKLEVINGTON GRANGE (MR. E. J. MAY).

entrance opens right into the dining-room, though with a little porch and inner door; an arrangement characteristic of rural simplicity, but which had better not be employed unless it is ascertained beforehand that the client understands and approves of it. The little ante-room between drawing and dining-room is a feature not often introduced in a house on so small a scale, but is certainly an agreeable addition.

Fig. 104 is a specimen of an interesting type of modern houses, a good many of which have been erected in one district in Scotland by an architect (Mr. R. S. Lorimer) who made it a

special object to follow the style of the old houses of the district, and suggests this as the proper way to design houses for a district in which there are any special peculiarities of building. The one illustrated is, in fact, partly an old house, with additions in the same manner ; but he has carried out other entirely new ones on the same principle. When illustrations of several of these were published together in the *Builder*, they attracted a good deal of attention and admiration among the more artistic section of architects ; and they certainly served to emphasize strongly what is a very important point in rural architecture, viz. that of keeping the buildings in harmony with what may be

FIG. 104.—SCOTCH HOUSE IN LOCAL STYLE (MR. LORIMER).

called the architectural character of the district. Still, this may be pushed too far, and I think was pushed too far in this instance, though the experiment was a very interesting one, and I for one sympathized very much with the feeling which led to it. But there are two points to be remembered on the other side. One is, that when building houses for a generation which is much more civilized and refined in its habits and manner of life than were the builders of the old houses in the same district, one is hardly called upon to ignore that distinction, and to consider that the type of house which suited the inhabitants of, say, two centuries ago, and expressed their taste and their life, is equally

to suit those who go to live in the same district in the present day. Secondly, the family likeness between all the houses in the same district in the pre-railway era arose from the fact that those who built them were practically confined to the materials and methods of their own district; they worked among themselves and in their own traditional manner, and had little means of communication with other districts; a state of things which railways have entirely altered. With a moderate degree of extra expense we can now bring such materials as we prefer, from a long distance. Where the available building materials of the district are satisfactory, there is no object in looking further; where they are not, it seems rather foolish to ignore the fact that we can get better materials by rail. Still, the more the materials of the district can be satisfactorily used, the better; and the study of the prevalent character of the architecture of the district should always be made before building, and the style of the new building harmonized with it as far as altered circumstances allow; a point sometimes much neglected. But this may be done without going to the extent of absolute adoption or imitation of the style of the existing old buildings. Let the architect show that he has not overlooked them, that he has felt their influence; let him also study whether he cannot improve upon them, without architecturally losing touch with them.

One result of what has been called the "Queen Anne movement" in architecture has been the tendency to revive what is really rather a Georgian than a Queen Anne type of house—that which forms a plain rectangular block, within which the rooms are arranged so as to present externally a symmetrical range of windows, with no indication of the interior divisions of the house. One very large house of this type, built by Mr. Norman Shaw on a corner site in Queen's Gate, is familiar

to most Londoners, and is a fine example of its class. There is what may be called a certain prim dignity about a large house well carried out on this system, and it is no doubt specially suitable for town houses, as forming a straight street line, and falling in well with the usual rectangular plan of town sites. So far as there is any preference for this type in country houses, it must arise mainly from association with a period of English life which has, for various reasons, become interesting to us of late years, partly perhaps from a re-action against the neglect of or dislike to it earlier in the century. One good quality, however, the real Georgian houses of this type possessed —they were almost always very solidly and substantially built, and very well finished in every detail, and no attempt to revive this class of house can have any success except under such conditions. To regard this plain-looking class of house as a possibly cheap one is therefore an illusion; its architectural merit only exists where the solidity as well as the simplicity of the old examples is emulated. Nothing is more miserable and mean than a cheaply built house of this type, with thin walls and coarsely finished details. In many of the old Georgian houses, as is well known, we find some of the best and most highly finished wood-work on record, simple and practical in its character, and devoid of invention or fancy, except of a humble type, but satisfactory from its careful and conscientious execution. Fig. 105 gives, however, an instance of a pleasing modern attempt at some variety in this Georgian type of house, by the employment of contrasted materials and a little more richness and prominence given to the entrance doorway than is usual in the actual Georgian examples. This is a house built near Haslemere, designed by Mr. G. A. Hall. The lower portion of the walls externally is of an orange-red brick, the upper portion of grey rough-cast; the string-course

dividing the two portions is of oak. The exterior wood-work is painted a dark neutral green. In the plan the central hall is lighted from a skylight concealed from exterior view. This portion is well arranged; but the passage from hall to kitchen must be deficient in light. The kitchen fire-place also would appear to be badly lighted, but as this is a one-story addition, we may assume that there is a roof-light. If the studio has a north light (which is essential), the morning-room has a north light also, and has consequen tly a dull aspect for a sitting-room.

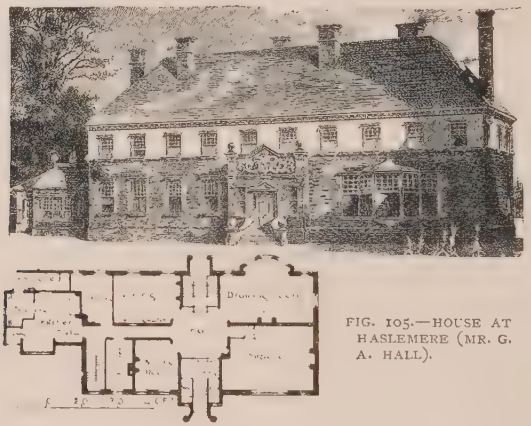


FIG. 105.—HOUSE AT HASLEMERE (MR. G. A. HALL).

But the appearance of the house is pleasing, though the formal regularity is broken by the bay window, which appears to be really the bay window of the drawing-room brought round into the front view in order to show its treatment.* The windows of morning-room, larder, and back staircase are all precisely similar; but this is almost inevitable on the scheme of design followed. To the uniform range of the upper windows, presumably all bedrooms, there can be no objection. The

* The plan and the view, it will be observed, do not correspond; according to the plan, the flat window of the studio, and not the bay window, should be seen on the right of the entrance door.

employment of rough-cast in combination with brick or stone, it may be observed, as a means of obtaining variety of colour, has been a little used lately, and might very well receive more attention ; it can be compounded of various colours, such as will harmonize with various tones of stone or brick, and it has a more effective surface, with more texture, than the smoother surface formed by the ordinary cement or plaster finish. Plaster, however, may be used with good effect when it is desired to get some white surface on a wall as a contrast. Any contrast of this kind, however, should be used in masses, not in bits. A scattered and bit-by-bit contrast of material makes a house look spotty, and destroys repose of effect ; and that is the great objection to the method of building which is commonly described as "brick with stone dressings," where the stone is not massed in any portion of the building, but makes patches at the angles of walls and windows—a fashion once much in vogue, but now fortunately declining.

In the plan in Fig. 105 it may be noted that both the dining-room and drawing-room fire-places are too close to the door for real comfort in gathering round the fire-place. This is a patent defect (or one would think ought to be) which is extraordinarily common in modern house-planning, and is more especially so among the school of architects who rather pride themselves on looking at house architecture from a specially artistic point of view. Plan after plan by these gentlemen I have come across in which there did not seem to have been any consideration given to such minor matters as the position of the fire-place in reference to the door, or even the way the door ought to open. Yet these things make all the difference in the comfort of a room. Fig. 106 is a plan typical of this class of defects. The dining-room door opens nearly on to the fire-place, and both this and the other door, from the

kitchen region, are hung the wrong way, so as to expose the room fully from the outside when opened. They ought, of course, to be hung on the side of the doorway furthest from the wall, and open on to the wall, otherwise the privacy and comfort of a room are interfered with every time the door is opened. This is a kind of thing that even the speculating builder has his eyes open to, yet there are eminent architects who seem entirely blind to it. In the plan referred to it will be seen that when the dining-room door is wide open, any one standing at the entrance door would see right to the back of the room (see the dotted line on the plan). In the library the fire-place, though too near the door, is behind it as it opens, which is better. The kitchen window is placed so that the cook at the kitchen range must be in her own light, and it looks nearly west, which will be pleasant for the cook when dishing up dinner on summer evenings, with the sunset pouring directly in. All these little points as to the way a room will actually "work" in occupation ought to be present to the mind's eye of the architect in planning the rooms; but it is evident that they often are not.

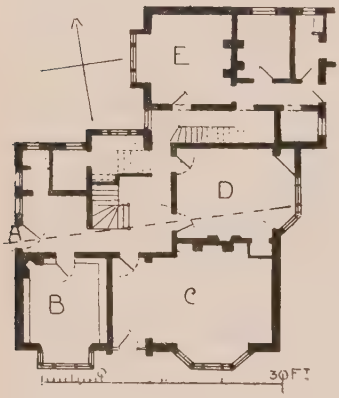


FIG. 106.—FAULTY PLANNING: DOORS OPENING WRONG WAY, ETC.

A. Front door. D. Dining-room.
B. Library. E. Kitchen.
C. Drawing-room.

The plan of Ashorne Hill (Fig. 107), by Mr. Goldie, is an interesting one, with some very good points about it, especially in the planning and design of the large open hall, of which a view is introduced (Fig. 108). In a mansion on the largest scale a central hall on a symmetrical and stately plan is almost a *sine*

quâ non ; in a more moderate-sized house the large hall, though it may very well be introduced and, in fact, is almost necessary to a thoroughly good house, need not be so formally and centrally planned—it can be introduced in a more informal and less centralized manner. The arrangement of this house in two wings, a kitchen and offices' wing to one side of the centre (terminated in front by the billiard-room) and an entertaining-room wing at the other side, is commendable, and the manner of access to the drawing-room from the hall is prettily contrived ; the contrast between the drawing-room and the octagonal "saloon" is effective ; the dining-room seems rather small in scale for the rest of the house, and must surely be rather deficient in light. The placing of the entrance centrally between the flanking projections of the wings, as in a kind of court-yard, is good in regard to effect, but it is a question whether the entrance ought to be so directly overlooked from the billiard-room and drawing-room windows, and still more a question whether the drawing-room (or any room for habitation) ought to have windows on opposite sides in any case. Windows at the end and at one side if you like ; in fact (as before observed), a drawing-room always ought to have a prospect in two directions, where possible ; but not windows at *opposite* sides, so that people outside can see through the room, which destroys privacy,

FIG 107.—PLAN OF ASHORNE HILL (MR. GOLDIE).

besides making a chilly room in winter. On every ground, it would seem, those windows looking on the entrance had no business there. The view of the hall (Fig. 108) shows a very pleasing and picturesque interior; it may perhaps be questioned whether the balustrade of the landing should be returned across the lowest flight of stairs, as from the view it evidently is, for mere uniformity of design, with the result of making a

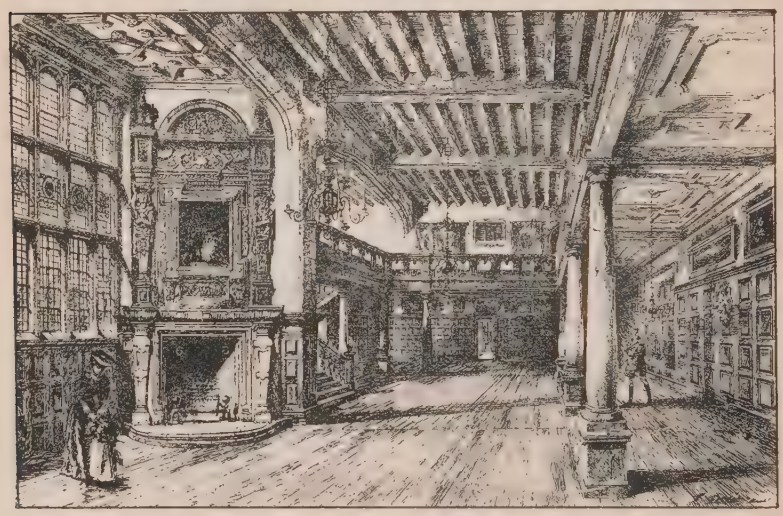


FIG. 108.—THE HALL, ASHORNE HILL.

low headway at the foot of the stairs. This is one of the difficulties in "leading" stairs out of a staircase hall; there should, wherever possible, be a lofty opening for the stairs to commence under, where it is not necessary to return the floor or landing above them. There is a disagreeable cramped feeling, especially in descending the stairs, when the exit at the foot is made, as in Fig. 109 (from an American house by Messrs. Shepley, Rutan, and Coolidge), through a comparatively low arch, so that until getting near the bottom of the stairs one cannot get a

clear view through. There may be plenty of headway really, but there is a sensation of being cramped and, in going up, of entering the stairs through a hole. A stair should as far as possible have free space over it.

The Americans, in recent years, have shown a great deal of inventiveness in regard to the planning of dwelling-houses, and have suggested also some forms of architectural treatment which have a certain novelty and interest. The late Mr. Richardson came very near developing a style of his own; perhaps he and Robert Adam are the only two architects of the modern era who can claim to have achieved anything so near inventing a style. In both cases, of course, the style was based on old materials, but each of them evolved from his treatment of the old materials a very recognizable manner of his own. Richardson's style was based on a study of Byzantine detail, coupled with a preference for a plain and massive treatment of masonry, showing, in fact, rather a tendency to revert to what may be called the primitive elements of building. When he wished to give special expression or emphasis to a pier, and to relieve the blankness of mere walling, he did so by the insertion of small sturdy colonnettes, one, two, three, or half a dozen in a group, according to the width of pier to be treated.* This

FIG. 109.—STAIRCASE WITH CRAMPED HEADWAY.

* The treatment is shown in the illustration of the American Trust Company's offices, Fig. 135, page 257; not by Richardson, but a direct imitation of his manner.

was his weak point, for it became a mannerism, and one easily imitated, a compliment which it received so extensively that it has already become a commonplace. But his tendency to revert to primitive conditions of building has left a very decided mark on modern American house architecture. A house has come to be regarded by many American architects (and presumably by their clients, considering the number of houses of this type that

FIG. 110.—HOUSE, CONNECTICUT (MR. S. BROWN).

A. Drawing-room. C. Sitting-room. F. Dining-room.
B. Reception-room. D. Library. E. Hall. G. Kitchen.

have been built) as a superior shed, strongly built and divided into as many compartments as are necessary, but defiantly ignoring everything like what is usually called architectural detail; walls and a roof only, taking the form suggested by the planning of the compartments, but devoid of any architectural expression except what may arise from this grouping. Fig. 110, a house in Connecticut, is an example of this type of American house. There are, it is true, what may be called

columns to carry the flat roof of the porch, but they are not "classical order" columns, they are only the primitive element of the column; a pier of circular section with a square template on the top. The chimneys are mere vertical blocks of masonry carried up as far as is considered necessary (I should think the two adjacent to the central roof ridge, and below its level, will be found to smoke). The excessive height and steep pitch of the roofs, it must be admitted, is not practical from the modern point of view, and recalls a period when people could not frame timber securely for low pitches, without danger of its spreading, and when they could not cover a low-pitched roof so as to be adequately rain-proof. In this respect the design of this house is sentimental and archæological; in other respects it is practical. Numbers of houses of this defiantly plain type are now being illustrated in the American architectural journals. The feeling which is at the back of this type of house architecture seems to be, that if we cannot invent new architectural detail we may at least refuse to copy the old, and that in time an original form of detail may be developed as our own architectural ideas develop. Whether this is really likely to be the case is what no one can predict. What we can, perhaps, agree upon is, that this type of plain housebuilding is at least preferable to the unthinking employment of conventional architectural detail. On the other hand, if it is admitted that architecture should be the visible expression of the mode of life and the taste of its own day, is this type of absolutely plain and barn-like architecture a real expression of the home life of the people who constitute the most luxurious and the most "particular" of modern societies? Is it not really rather an artificial pose?

Another special type in recent American house architecture is that which has arisen from the influence of what is called in the States the "old colonial" architecture. The early colonists

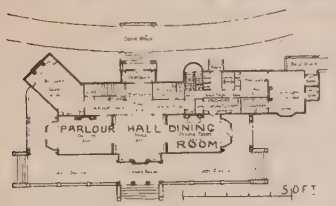
carried with them the architectural tendencies derived from English Jacobean architecture, but carried it out on the new soil with a certain simplicity and *naïveté* which seemed to give it a new character. Fig. 111 is one of the genuine "old colonial" houses at Charleston, and the modern house, Fig. 112, shows the manner in which this type of architecture has been to some extent revived. The columns of the portico are probably of wood; they are, as will be observed, too attenuated for the proper treatment of a stone column, either in the practical or classical sense. But part of the influence of the old colonial architecture has been to bring about, even where there is no actual revival of the style, a tendency towards what may be called a playful use of the columnar order, in porches and verandahs and other such situations, which is rather peculiar to modern American house architecture. This has recently been imitated now and then by English architects, who have got the trick from the Americans. It is rather curious thus to find this modified form of the features of English Renaissance coming back again to us from American shores.

FIG. 111.—OLD COLONIAL HOUSE, CHARLESTON, U.S.A.

One peculiarity in the modern American houses of this type is the predilection evinced in the plans for the adoption of the circular form for sitting-rooms. The tendency to this is shown in Fig. 110, but there are other plans in which the whole of the principal rooms are complete circles. Such a plan for a room

has its practical inconveniences, especially when the principal bedrooms above have to follow the line of the sitting-rooms, for a circular plan is an exceedingly inconvenient one for a bedroom. But for sitting-rooms this form of plan is certainly very attractive in appearance, and suggests new effects in architectural and decorative treatment; and the general effort on the part of American architects to obtain novelty of interest and effect in house-planning ought to be a lesson to us, who are much too content to move in the same grooves, and to plan houses after

FIG. 112.—MODERN AMERICAN HOUSE IN "OLD COLONIAL" STYLE (MR. H. M. STEPHENSON).



a kind of conventional pattern. The plan of Fig. 112 again, in which it will be seen that the two principal sitting-rooms are placed *en suite* with the hall, not by the ordinary door, but by a large opening with provision for sliding back the doors altogether, and leaving the rooms open to the hall continuously if desired, reminds me of an English house built by a well-known artist for himself, in which this kind of idea has been carried much further. The main or central portion of the house in this case is in plan something like the nave, transepts, and choir of a cathedral, the "nave" forming the hall, the "transepts" a dining-room and morning-room (I think), and the "choir" the

drawing-room. There are no doors or walls at all dividing the spaces into rooms, but there are heavy curtains which can be drawn across any of them when it is desired to seclude either of the spaces a little, so as to form a separate room. When this is not required the whole of the living portion of the house is an open space in the form of a cross, so that an effect of spaciousness is realized which cannot be attained in an ordinary-sized home with the living-rooms permanently divided. Of course a house on this plan requires some distributed heating apparatus, otherwise it would be chilly in winter, but the suggestion, at all events, is one worth keeping in mind.

FIG. 113.—ST. MARGARET'S HOUSE, GERMAN TOWN, U.S.A. (MR. G. T. PEARSON).

Another example from among American houses is given (Fig. 113), as a good instance of special architectural expression being imparted to a house of a special character. This is "St. Margaret's House," in connection with a church at Germantown, Pennsylvania. This is evidently a residential house for a Sisterhood; it was therefore to be treated as a domestic building, a residence, as the greater part of it is; but by the central feature, the low tower with small turrets between the gabled wings, the architect has at the same time expressed clearly that this is not an ordinary private dwelling house, but an institution of some kind; something is added to the residential character, and this is very clearly expressed in the architectural treatment.

The French seem, nowadays at least, to have no medium in the way of a country house between the *château* and what they

fondly regard as the "picturesque" type of *maison de campagne*. In the way of sheer bad taste nothing has ever been seen worse than this kind of French ideal of a country villa, drawings of a number of which are to be seen every year in the architectural department of the Paris Salon—houses in which the object seemed to be to destroy all repose and all dignity of aspect, and to cover the whole building with gew-gaw decoration in ironwork and tiles, coloured brickwork, barge boards, and

FIG. 114.—A FRENCH "MAISON DE CAMPAGNE" (MILD FORM).

FIG. 115.—MODERN VIENNESE VILLA.

finials. The illustration in Fig. 114 is from one of the more moderate of these designs; many of them are far more rampant than this. The Germans are just as bad. The villa from the neighbourhood of Vienna (Fig. 115), with its portentous barge-board over the centre, gives some idea of what they are capable of in this respect, though this again is nothing to some examples that are to be seen in German architectural papers. When we compare this kind of thing with the type of Viennese suburban

villa of fifty years ago, shown in Fig. 116, one must admit that the formal taste of the German of that day was, at all events, better than the taste for what may be called the "spikey" picturesque of the present day. Indeed, that is not at all a bad design for a small suburban house near a great city, giving one the idea of something of the polish of city architecture, combined with a slightly playful expression in the central portion, arising from the treatment of the plan and of the windows, and not from any unnecessary details tacked on to it. Fig. 117 is a better example of a modern German villa, and is worth attention for its ingenious and effective plan, and the manner in which the central portion, containing the music-room, is emphasized on the exterior, the wings being left plain for contrast. It may be added that the Germans, like the Americans, are often ingenious and originating in regard to the planning of houses, and valuable suggestions may often be picked out of a German book of plans,

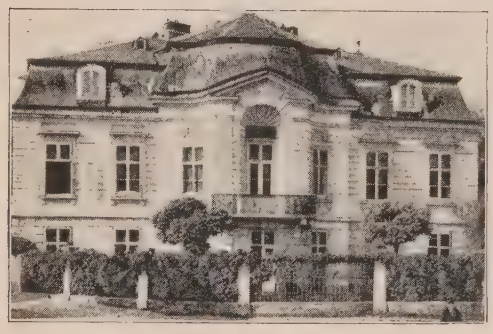


FIG. 116.—VIENNESE SUBURBAN VILLA OF FIFTY YEARS AGO.

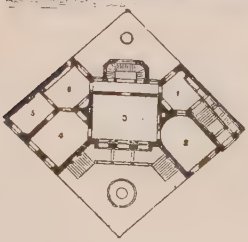


FIG. 117.—VILLA, BEETHOVEN-STRASSE, BERLIN.

though the arrangement of the rooms is sometimes not suited to English ideas of home life. The French architects are mostly very bad planners; in fact, their houses rather convey the idea that to their minds any plan will do, so long as the requisite number of rooms are there and the architectural treatment satisfactory from their point of view. They have much to learn from us in regard to house planning, and we have certainly nothing to learn from them.

In classifying dwellings under the types of "mansion," "house," and "cottage," I did not intend by the latter term what is most commonly called a cottage—a humble dwelling for a labouring man—but rather meant to imply the smallest and most informal type of dwelling which can be regarded as a gentleman's house. In a dwelling of this class, which cannot pretend to dignity, there is an excuse for adopting a more naïve and picturesque style of building than would be proper to a house of the normal standard of size, but picturesqueness of outline should be combined with simplicity. We see many small houses now published in books, and some built, in which the attempt seems to be to cut up the design into so many parts as to give the idea of a large house in miniature. We find a number of very little rooms, a staircase turret which turns out to be only about four feet in diameter, an arched entrance doorway, through which we find we can hardly walk without stooping. This is the greatest mistake in building a cottage house, and only ends in making the dwelling look ridiculous, and falsifying all idea of scale in regard to it. As a small house, it demands simplicity of grouping, fewness of parts, more than a larger house. The essential characteristic of a cottage house is not that the rooms should be so very small—they will be smaller, no doubt, than those of a large house—but that there are fewer of them. The plan and design (Fig. 118) by Mr.

Horsley is a very good type of a real cottage house, very suitably treated. It will be observed that these are not very small sitting-rooms, but the house is one of few parts, and simply and compactly planned,* and probably the rooms rather low. The last point is a very suitable characteristic of a cottage house; it conveys a sense of repose and retreat, and it is a rational means of economy of material, which is an object to be sought for in a cottage house, so far as it can be done without indulging in flimsy structure. That vice should no more be allowed in a cottage than in a palace. We meet with books nowadays giving charming designs for cottages and small houses, with assurances that they can be built for wonderfully small sums; but if we visit any of these cheap cottages which have been carried out, we shall probably find that the whole house shakes every time any one walks across the upper floors.

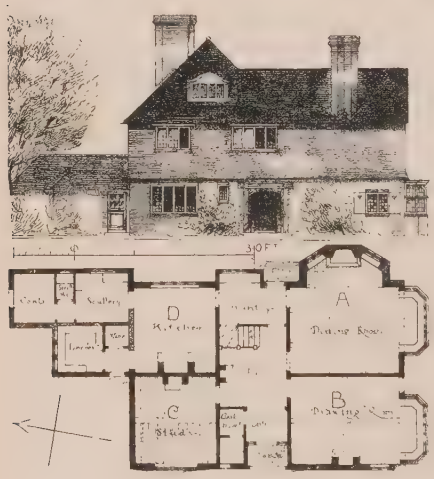


FIG. 118.—DESIGN FOR A COTTAGE RESIDENCE (MR. G. C. HORSLEY).

A. Dining-room. C. Study.
B. Drawing-room. D. Kitchen.

Simplicity should be the characteristic of cottage architecture, as regards detail also. The design already referred to is a very good example, and this kind of semi-rustic treatment,

* It must be pointed out, however, that the kitchen fireplace is in the wrong place in regard to the window; the cook at the fireplace would be standing in her own light all the time. A kitchen fireplace requires a sidelight (unless where a top one is available).

with the upper portions of the walls tiled, is suitable enough, though not *de rigueur*. A cottage house may be purely masonic in treatment, with good solid walls, without derogating from its cottage character. Fig. 119, by Mr. Collcutt, is a good example; it preserves the cottage character, and is a compact and well-arranged plan, considering the awkward shape and proportions

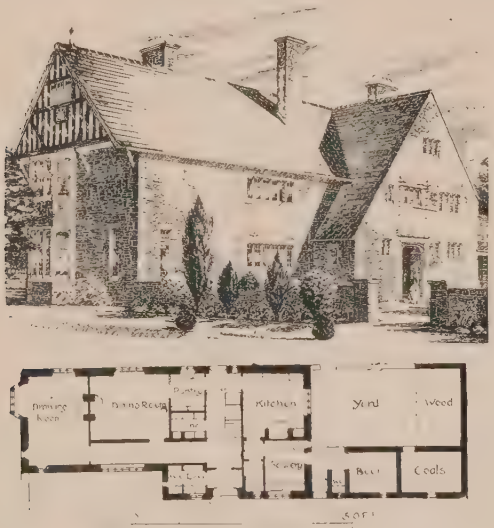


FIG. 119.—COTTAGE RESIDENCE (MR. COLLCUTT).

of the whole block, which were probably determined by external circumstances. It may be observed that careful arrangement of plan, and getting every room and door into its right place, is of great importance in a cottage house, where apartments for various purposes are necessarily so close together and compressed into so small a space.

In regard to architectural character, the American architects show a good deal of originality and resource in the treatment of cottage houses. Fig. 120, showing two interiors from a small

house by Mr. Arthur Little, is a good example in this respect; without being small or cramped, the rooms have distinctly a cottage character. Fig. 121, an exterior view of a cottage at Narragansett Pier, by Mr. Bruce Price, shows an exceedingly characteristic treatment of a small seaside house. The simplicity of the design, the bold character of the masonry, and the verandah with its sturdy quasi-Doric columns, all combine to produce that expression of strength which is proper to a seaside house. This quality will be more apparent if this is compared with Mr. Horsley's cottage design before referred to. The latter is emphatically an inland country cottage, as Mr. Price's is emphatically a sea-coast building.

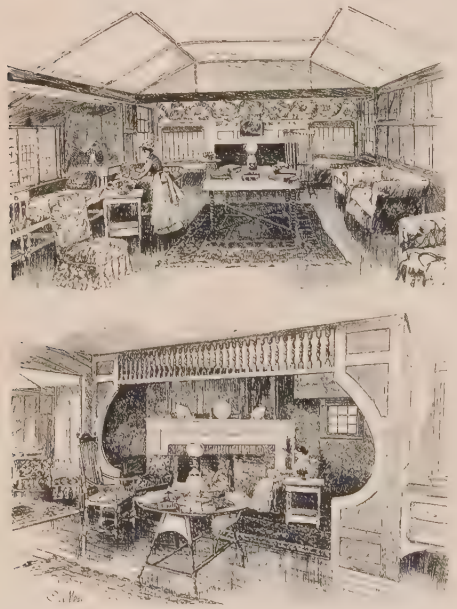


FIG. 120.—INTERIORS IN HOUSE, MANCHESTER-ON-SEA, U.S.A. (MR. ARTHUR LITTLE).

We have been considering mainly the design of country houses, or of such as, if not actually in the country, are supposed to stand free, and to be capable of all-round treatment. Town houses which form part of a line fronting a street may be better considered, architecturally, under the heading of street architecture. Town houses of the larger class, which stand within their own enclosed land, may be considered to be under much the same conditions, as far as plan and architectural treatment are

concerned, as country houses, except that they are more limited in regard to choice of aspect, and it is therefore not always possible to select the most favourable aspect, in respect of sunlight and weather, for the principal rooms; the best has to be done which is possible under the circumstances. As far as architectural style and design are concerned, it is not very easy to say that there should be any special distinction between a mansion in the country and a mansion standing free in a town, or, at all events, to say what kind of distinction there should be. It may be supposed that a town mansion admits of or demands a more pompous and more conventional treatment than a country mansion, but it would not be very easy to support this

FIG. 121.—SEA-SIDE COTTAGE, NARRAGANSETT (MR. BRUCE PRICE).

by examples. Dorchester House, which may be taken as a kind of typical specimen of a large town mansion of average architectural merit, would, as far as I can see, look neither better nor worse in a park than it does in Park Lane; and the same may be said of Bridgewater House. So far as any decided distinction can be made, I think it is rather in this direction—that greater simplicity and breadth of treatment are required in a country house, or, at all events, that a degree of variety and multiplicity of detail may be tolerated in a town mansion which would appear out of place and deficient in repose in a country mansion. Mr. Hunt's New York house, shown in Fig. 122, for instance, is suitable enough in a street, but would be a very restless affair to see among trees in a park. It is true that this

is a street house rather than a town mansion proper. Fig. 123, a free-standing house in the Avenue Bois de Boulogne, Paris, is a kind of domestic architecture which one may tolerate in the

FIG. 122.—TOWN HOUSE, NEW YORK (THE LATE R. M. HUNT).

suburban roads of a city, but which would be intolerable in the country; but, then, one would not call this a very pleasing or pure form of architecture, even in the city. Generally speaking,

one may say that the best and most refined architectural treatment of a separate mansion will look as well in a park as in a suburban or city road. Street architecture, in the restricted sense, is of course another matter (see Chapter V.).

Under the head of town mansions come the modern and rapidly multiplying class of houses in flats, or apartment houses. These demand a special treatment, entirely different from that of a mansion in one occupation. In the latter we have to emphasize certain portions and certain windows as the superior and residential portions of the house; in the apartment house the whole is a residential block, on nearly equal footing; the windows of offices mostly look into internal courts; externally the building should express itself as what it is, a collection of small residences. Hence there is very little excuse for grouping of windows or otherwise emphasizing certain portions of the building beyond the rest; a broad simplicity of treatment and (generally) equal spacing of windows is required, to give the true expression of the building. On the Continent, both in France and Germany, there is too great a tendency to make these buildings look like large hotels, and this has been imitated occasionally in London, as in the block

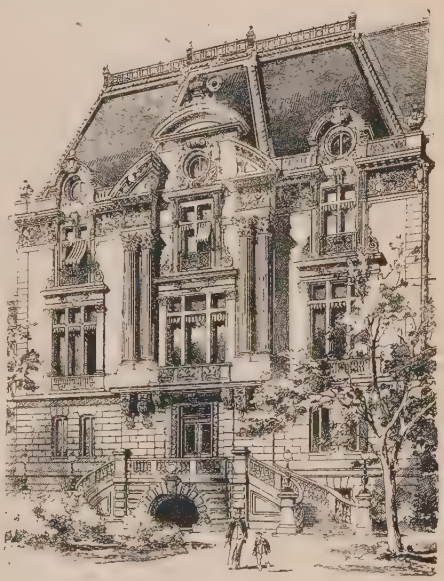


FIG. 123.—HOUSE, AVENUE BOIS DE BOULOGNE, PARIS (M. POLLET).

of buildings near Albert Gate, which suggests at once the idea of a monster hotel. The Americans are much more direct and realistic in their treatment of apartment houses. Fig. 124 gives an illustration of one, designed by Mr. Putnam and called by the incongruous title of "Haddon Hall;" the design, it will be seen, is in exact accordance with the nature and purpose of the building, and at the same time is not ineffective architecturally, and some variety of surface has been got by combining and emphasizing the bay windows, which no doubt represent the best room in each suite. Fig. 125, an apartment house at St. Louis (by Mr. A. Swasey), shows a different system, treating the building horizontally rather than vertically, with equally spaced windows; the plain treatment of the lower portion in comparison with the upper seems uncalled for (though it is no doubt effective architecturally), as it suggests a *piano nobile* (as it was called in the Italian *palazzi*) which does not exist. Possibly, however, with the free use made of lifts in America, there may in that country be a preference for the upper rooms in an apartment house, and they would command higher rents; in that case the architectural treatment would be justifiable. Mr. Norman Shaw's block of mansions near the Albert Hall shows an exceedingly good treatment of this class of building, in which some degree of architectural variety is obtained, not by unduly emphasizing

FIG. 124.—"HADDON HALL" MANSIONS (MR. PUTNAM).

any of the residences above the rest, in the treatment of the windows, etc., but by the simple expedient of setting the wall line back slightly in one or two places, and forming a shallow arched recess which forms an incident, gives shadow, and breaks the uniformity of the front. Mr. Brydon's block of flats in Bloomsbury (Fig. 126), with a still simpler design of the same kind, is a very good example of a reasonable and characteristic architectural treatment of an apartment house. All these buildings look like apartment houses and like nothing else;

FIG. 125.—APARTMENT HOUSE, ST. LOUIS, U.S.A. (MR. A. SWASEY).

while Fig. 127, an apartment house at Budapest, at once suggests a hotel. The main difference lies in the advertising appearance of the architectural treatment at the angle, with its florid Order and cupola; a hotel has to attract notice in order to attract custom; an apartment house is a home, and should never have that appearance of making a show. It must be remembered also, of course, that an apartment house is a collection of similar tenements, while a hotel is a collection of a few suites, a number

of bedrooms, and several large rooms for general use by the visitors as dining-room, reading-room, etc., etc., which require to be accentuated ; so that the architectural treatment required is quite distinct from that of an apartment house. But it is the advertising element which makes the more essential distinction, and which is the cause of hotel architecture being for the most part so abominably bad, florid, and vulgar ; the hotel has to

FIG. 126.—APARTMENT HOUSE, BLOOMSBURY (MR. BRYDON).

catch the eyes of visitors, to make itself prominent, and it is supposed that nothing is so likely to do this as a building bedizened with ornament, which at the same time must be cheap, or the cost will be out of proportion to the expected returns ; and as hotels are always built in as great a hurry as possible, for the same reason as theatres, in order to begin making money

at the first possible moment, there is no time for anything like architectural design; a kind of stock pattern is followed which can be run up without thought. There is nothing more offensive in modern architecture than the average "grand hotel," but it must be admitted that the promoters of these buildings seem to have gauged pretty well the average perceptions and tastes of those who form the majority of their customers.

There is, however, one other class of town mansion which may be grouped with residences, and which is generally situated and treated as an all-round building, viz. the Club. This may be regarded as a house for many instead of for one, but for day residence only, and consisting entirely of large rooms for general use, instead of being divided, like a private house, between entertaining rooms and bedrooms, and other smaller rooms. The adequate and characteristic architectural treatment of a large club seems a tolerably simple problem; at all events, it has been more often successfully attained than is the case with most other classes of buildings. To begin with, an architect is generally not stinted for money in building a club; it is usually based on a large subscribed capital; it is not, like a hotel, under the necessity of being made to pay a large return on the outlay; and, at the same time, it is a building in which a certain richness

FIG. 127.—APARTMENT HOUSE, BUDAPEST.

and sumptuousness of treatment are called for. In the second place, the various stories are practically all of equal dignity; the few necessary rooms for caretaking and storage can be got out of sight, or relegated to an attic,* the rest is all palatial architecture. A club, in short, is a building in which men of moderate means have the opportunity of living in a palace, and in which all the rooms with which the architectural expression is concerned are rooms of nearly equal spaciousness and importance. This last is the most important element in suggesting the architectural treatment of a club. It is illustrated very well if we compare such a design as the Metropolitan Club, New York (Fig. 128), with the previously illustrated apartment house at St. Louis (Fig. 125). Both are large square buildings with a strongly marked cornice and equally spaced windows, but no one could possibly take Fig. 128 for an apartment house, the windows are too large and widely spaced on every story; nor could any one take Fig. 125 for a club, on account of the small scale of the windows. But while it is almost the duty of a club to appear sumptuous and of a palatial dignity, it is equally

FIG. 128.—"METROPOLITAN" CLUB, NEW YORK.

* The kitchens are now sometimes put on the top floor of a club, and there is a good deal in favour of the arrangement, but in that case they would almost certainly be top-lighted.

bound to avoid everything like pretentiousness and the appearance of advertising. There are several well-known London clubs, especially among the rather older ones, which, with very varying degrees of architectural merit, at all events fulfil the general ideal of Club architecture exceedingly well; the "United Service," the "Athenæum," the "Travellers," the "Reform," the "Army and Navy," the "Carlton," the "Conservative," "Arthur's"—all these are fair specimens of club-house architecture; some, as the "Reform," are exceptionally good, but all are dignified, suitable, and devoid of the showy or pretentious element, unless exception be taken to the rather undue display of polished granite columns in the "Carlton." The Americans seem to have taken our best types of Club architecture as a model; they may have improved upon it in some instances; at all events, they have erected a good many admirable buildings of this class, nor indeed do I remember to have seen any design for a club-house by an American architect which did not show a true perception as to the kind of architectural treatment required. In London we have others, such as that the title of which a well-known novelist happily contracted into the "Judæum," which are pretentious and gewgaw in their architectural style; and there are others which are the offspring of political movement only—huge caravanserais, into which all sorts and conditions of men are admitted, on the mere ground of political orthodoxy, and which have lost all the characteristics of the old style of club-house, and are indistinguishable from large hotels; and so far, no doubt, they correctly represent the situation, and the difference of character between these and the clubs of Pall Mall and St. James's Street. The latter are the homes of a select society, and the buildings for the most part fairly represent this in their architectural expression of dignity and refinement. The recent large clubs in the Charing Cross

neighbourhood and elsewhere are essentially huge political taverns, and architecturally, by a natural consequence, they are hardly distinguishable from hotels. They are not without architectural merit of their kind, certainly, but they are not club-house architecture, and should not be taken as models for anything in the shape of a club-house in the old meaning of the word, viz. a day residence for a select social circle.

CHAPTER V.

STREET ARCHITECTURE.

STREET architecture, in the proper and limited meaning of the word, is the result of the necessity of planting buildings as closely as possible together in towns, to save space and in consequence of the value of land, coupled with the necessity of having definite and continuous lines of communication between the buildings. Street architecture consists therefore of buildings which architecturally have only a front and back, and no sides (except in the favoured instances of the buildings at the corners of the streets), and the fronts of which form a continuous series of façades of buildings in different occupations and for different purposes, but structurally united into one long mass. This is the essential characteristic of street architecture, and this is what makes it a special architectural problem.

In the ancient walled cities a crowded street architecture and very narrow streets were forced on the inhabitants by the necessity of providing for their increasing numbers within the limits of the walls, a house outside the walls being liable any day to be looted by marauders. In modern unwalled cities there is more elasticity, in regard at all events to width of roadway; we are not belted in with a fortification; we can extend a new street on to unbuilt land, on giving proper notice to the district surveyor, and the marauders attack us from the centre rather than from without. Yet there is as strong a desire to get

into a modern city, by peaceful means, as there was to get into the old walled cities by assault; not, indeed, for the same purpose, to cut the throats of the inhabitants, but to make money out of them in the lawful way of business; and between this and the natural rate of increase of population within the town there is always that demand for new dwellings which induces the building owner to place his houses close together in order to profitably utilize every foot of ground, besides effecting the economy of substituting party-walls for external walls.

Hence this phenomenon, as has been said, of rows of buildings which consist only of fronts and backs, and of which the fronts constitute what is called "street architecture." A good deal might be said as to the backs of the houses also, though they do not come strictly into the present subject; they are not necessarily marshalled along such a rigidly defined building line as the fronts, and they have a rather more private and divided character given to them, in most cases, by the division walls of gardens or yards abutting on them. It may be observed, however, in regard to this part of the subject, that one of the greatest mistakes commonly made in regard to street houses is the treatment of them as if the street front alone were worth consideration, while the backs may be as plain and ugly as you please. More particularly is this a mistake when there is anything that can be dignified by the name of a garden in the rear of the house, for then the obstinate refusal of the building to lend itself to any decorative scheme in combination with the garden goes far to waste the opportunity. In building street houses which have any decent amount of land behind them, let people think of the back of the house as well as the front, and not denude it in order to concentrate on the front any degree of decorative treatment which can be afforded. One other remark before we go round to our professed subject, the street front;

there is room for a very characteristic variety in the style of treatment of the front and back. The back of the house, as we have said, has more the look of separation and privacy than can be possible in the front, and therefore will admit of a more playful and individual treatment; it is less called upon to conform to any general style or character pervading the whole row of houses; it is more the tenant's private piece of house wall, the background to his garden, and may reasonably be treated with more freedom from constraint than the front.*

So much for the back of the house, which we may now leave, and come to the street front. In regard to the series of houses making up a street there are certain general questions to be considered before we come to particulars; and the most important question of all is the much vexed one—should a series of buildings of one class be combined into one general design, or each be free to receive its own separate treatment? Of course, where a building of a special class is inserted into a row of buildings of another class, there can be no doubt so far. If a bank front occurs amid a row of dwelling-houses, or of ordinary shops, we expect to know which is the bank from its special

* Browning notices this kind of distinction between the front face and the back face of a Venetian house:

"Row home? Must we row home? Too surely
Know I where its front 's demurely
Over the Guidecca piled;
Window just with window mating,
Door on door exactly waiting,
All's the set face of a child:
But behind it, where's a trace
Of the starchness and reserve,
And formal lines without a curve,
In the same child's playing-face?
No two windows look one way
O'er the small sea-water thread
Below them."

In a Gondola.

appearance. But in the case of a row of houses of about the same size and rental, are they to be treated each in its own way, or to be combined into what is called a "terrace," in which the separate houses are subordinated to a uniform general design? Much has been said on both sides; and, generally speaking, I think the terrace idea is rather too much scorned at present; but it is a question of the character and plan of the site. There is a delicate refinement in Greek ornament, which ordains that the painted or carved ornament on the surface of a moulding should take lines somewhat similar to and in keeping with that of the sectional profile of the moulding. Apply the same kind of principle to squares and streets. I say that in a formally laid out square the design of the houses should be formal and grouped. A geometrically laid out square, with its lines true and parallel, whether it be a strict square or an oblong, is an artificial and formal creation, and requires, to give it its full effect, artificial and formal buildings. When you come to such an open space as Nottingham Market-place, for instance, that long and effective *place* wider at one end than the other, there indeed you feel that the irregular and picturesque element dominates the site, and picturesque and irregular houses are quite in keeping, and what one might expect to find there. But in a large formally laid out square stateliness is the prevailing element, and should be carried out in the buildings surrounding it; otherwise why take the trouble to lay it out formally at all? The mere grouping of the blocks of houses may be an element of architectural effect, when there is little else to give it. The architecture of Belgrave Square is not remarkable in itself; and yet there is always a certain fine and stately effect noticeable there, from the manner in which the corner houses are placed separate and at an angle of forty-five degrees with the square. With a finer and less commonplace style of architecture this

manner of laying out a square would be exceedingly stately and effective.

The same principle applies to a certain extent to the architecture of a street. Where a street is a wide one laid out perfectly straight, and especially if it leads up to any important building as an architectural termination to the vista, there is a good deal to be said in favour of designing it as one whole, not necessarily in a mere repetition of houses of the same design, which is always dull, but in a symmetrical arrangement of blocks of contrasting design. It must be remembered that we can always give a certain individuality to the houses in detail, by varied treatment of the entrances, etc. A good illustration of this is to be seen in the two houses designed by Mr. Knight (Fig. 129), houses designed and built together, probably under one ownership, and appearing to be related to each other, but yet with an interesting variety of character. In most cases two houses under such circumstances are treated identically, as if cast in one mould; the client may of course have wished for this, but it cannot be said that the architectural interest is the same. This method of giving variety to houses was quite understood by those who built the otherwise dull brick avenues of the Harley Street and Wimpole Street type. The details of the entrance doors in such streets, where the old doorways and their framework have been allowed to remain, are very agreeably and artistically varied. In the present day the street doors in a terrace are generally mere repetitions, as if they were cast in a mould; but this degree of slavish repetition is quite unnecessary, even where a generally symmetrical treatment is aimed at.

What applies to geometrically planned squares also applies to geometrically laid out curves in streets. The architecture of Regent's Quadrant is very poor in itself, but as the street

was laid out in a geometrical curve, the symmetrical treatment of the buildings which line it was right in itself, if the style and material had only been better. The sweep of the curve against the sky, which has a fine effect even as it is, is much better seen and defined by a continuous horizontal line

FIG. 129.—VARIED TREATMENT OF STREET HOUSES IN ONE OWNERSHIP (MR. F. G. KNIGHT).

and a symmetrical treatment of the buildings than it would have been if the sky-line had been formed by irregular gables of varying height.

Regent Street, when built, was regarded as a piece of

architectural design complete in itself, and it is a curious evidence of the importance which was then attached to this effort in street design, that there exist, in the Crace collection, two complete drawings to scale of the two sides of the street, on long sheets of paper giving successive segments of the design. We laugh at this now, but we must not be too sure that a future generation will not pick holes in our present methods of street building, though perhaps not with such good reason.

When we come to what may be called ordinary streets, which are not in a position in which a grandiose effect is specially called for, there, I think, variety of treatment, without any fixed or general design, is both more interesting and more expressive of the actual facts of the case, more especially in a street of shops. The call for variety, and the excuse for it, are indeed greater in the case of shops than of dwelling houses. For social reasons, dwelling houses in the same street, or at all events in the same row, are generally designed for the same class of inhabitants. A man who occupies a £200 a-year house does not want to have a 50-pounder next door to him; there is an eternal fitness of things in these matters. And the houses being all intended for the same class of persons, there is necessarily a certain similarity in their general size and appearance; one, at all events, is not to appear much more attractive or ornate than its next door neighbour. But such houses may be varied in design very considerably, and with very good effect, without appearing to quarrel with each other. Of this kind of treatment we have fortunately had a good many examples in some of the new residential neighbourhoods in the west and south-west districts of London, in various streets of red-brick houses which, without always presenting the highest architectural interest individually, are nevertheless very pleasing and satisfactory in effect when viewed *en masse*, and not without a good deal of

interest in detail ; and perhaps there is no branch of architecture in which we may so decidedly compliment ourselves on an improvement in recent years as in the better class of London street houses. When we compare Grosvenor Place and Cromwell Road with some more recent streets not very far from them, the difference is indeed immense and very gratifying.

In streets of shops and business buildings there is, on the other hand, a decided call for variety ; especially in shops ; for these are buildings each separate one of which is for the carrying on of a special business in a special material or production, so that there is every suggestion, in the very uses of the tenements, for varied and individual treatment. In a business street we may have a long row of shops each devoted to a different trade, among which will be interspersed in one place a bank, in another an insurance office, in another a block of offices for professional men, and so on. It is quite impossible to regard such a street as suitably treated by any arrangement of groups of tenements in symmetrical blocks ; variety is absolutely essential, or the whole thing becomes a blank and meaningless sham. The result is a number of buildings shouldered closely together, each of which (except at the street corners) presents one face only for architectural treatment, while each claims a distinct and individual treatment—and here comes in the difficulty : first, what can we do in the way of architectural effect and expression with one front only—sometimes a narrow strip of building ; secondly, how can we do this without clashing with the architectural treatment of the next-door tenement ?

In regard to this latter point, street architecture has been allowed rather too much to take care of itself. Architects are accustomed to design their own street block, marked off on the drawing-paper as a space of so much width, without much regard to what is, or is to be, on each side of it. Hence we see

cornices and string-courses run across the front, which have either to be cut off short when they come to the vertical boundary-line of the property, or returned upon themselves. Either arrangement looks awkward. The result often is that a street of buildings of various character looks too much as if each vertical strip of front were a portion of a larger design, out of which just so much had been cut as there was room to fit into the space available for it. It seems possible to obviate this. I would suggest that in any street building where it is impossible for the architect to have any control over what comes on each side of it, the real design of the front should be kept somewhat *within* the bounding lines of the property, so as to leave at each side a little width of blank wall as a neutral ground, as one may call it, where the walls of the two contiguous fronts may meet as flat planes, without any projecting architectural details to clash with each other. Occasionally we see instances in which this point has evidently been kept in view. An example is shown in Fig. 130, a design for a street shop front by Messrs. Batterbury and Huxley; and the

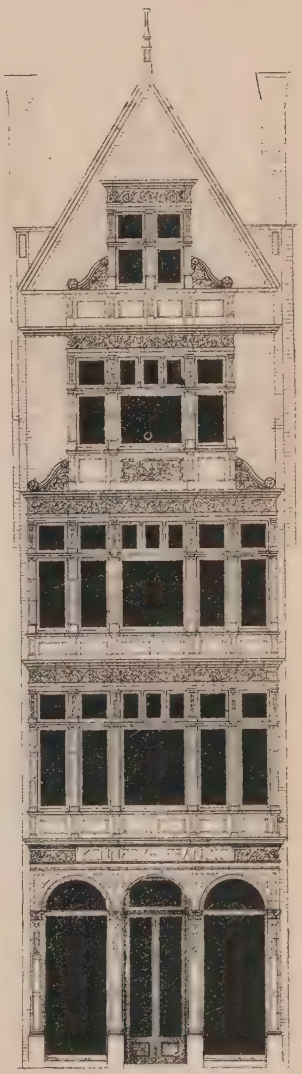


FIG. 130.—SHOP FRONT (MESSRS. BATTERBURY AND HUXLEY).

same object is achieved in a rather different manner in Fig. 131, a simple though very characteristic piece of street architecture by Mr. Hargreaves Raffles, which is so treated at the angles that any other design might butt against it without interfering with it. We see instances occasionally in which a complete design has been made which is effective enough in itself, but in which it is at once obvious that no two such designs could be placed side by side without each interfering with the effect of the other. Fig. 132, a good street design in itself, by Mr. Bedingfield, which was exhibited at the Royal Academy two or three years ago, would evidently not admit of any similar design being erected next to it; the two angle turrets coming into collision would look absurd. The general principle to be observed is to treat your own design freely and in your own way, but without extending it to the limit of the site, where it would be liable to interfere with, or be interfered with by, the adjoining building.

FIG. 131.—STREET FRONT (MR. HARGREAVES RAFFLES).

The question of the method of terminating the upper portion of a street building, depending more or less on the method of roofing, is one of the most important in regard to the effect of a

street; and here we are concerned more with the general effect of the whole street than with the particular building. Whether *one* building is to be terminated with a gable facing the street is not of so much consequence as whether *all* are to be so treated. What is called "sky-line" has become a kind of shibboleth. We admire exceedingly, and justly as far as appearance goes, the effect of the varying outlines of lofty and often highly enriched gables in old Dutch and German streets. But the effect is purchased at a heavy—we may almost say a prohibitive—practical cost. A series of gables means increased practical difficulty in keeping roofs water-tight and getting the water off them; and it means, moreover, either a large amount of wasted and empty space in the roofs — and empty spaces which you cannot habitually get at or inspect are apt to be insanitary spaces—or it means small and uncomfortable rooms in the attics, with low side-walls and partially sloping ceilings. The gabled street is picturesque, but unpractical; and, sad as it is to say so, I am afraid that if we want to have the best street

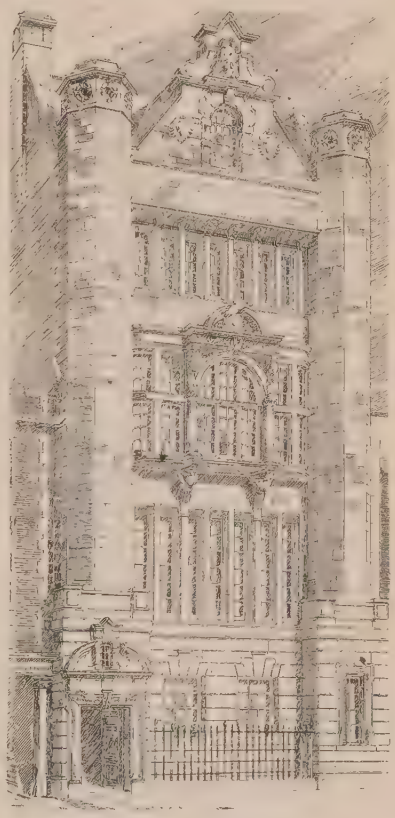


FIG. 132.—DESIGN FOR STREET FRONT (MR. BEDINGFIELD).

building for practical purposes, we must be content to let it go, at least as a general ordinance. A gable here and there, if you like, to break the straight line ; and an architect may be guided in this partly by the consideration of the general aspect and construction of the street in which he has to build. If it mostly consists of low-pitched roofs and straight lines, he may say, "Well, there is no harm in my running up my one gable for a little variety." Even here, however, he may be met by the argument that he is setting a bad example: "It is all very well for you, but suppose we all did it?" And there is another point which has hardly been taken seriously into consideration yet, and which I am almost afraid to mention, it seems so much at variance with our usual ideas of the street picturesque ; but I think it is likely that, with our modern habits of fireproof building and our new facilities with iron and concrete, the idea of the usefulness and convenience of flat roofs to town houses will more and more press itself on the mind of the reflecting architect and (so far as such a thing exists) the reflecting public. Only think of the usefulness and pleasurableness, in a crowded city, of impervious flat roofs; the opportunities of air and prospect you may get from them ; the chances of having little gardens or conservatories on them, which you may have absolutely no room for elsewhere ; the attic rooms of good height, with flat ceilings under them. I look upon it that the flat roof has a future in city architecture. "Then," people say, "there goes all our sky-line." Well, the buildings need not therefore be all the same height ; we may break the sky-line by square masses, and we may get to like it better ; there is much in habit. And there is one compensation in the rich effect which might be got by decorative balustrades, which in this case would be things of real practical use. The balustrade as generally used now is an architectural sham or survival to hide a sloping roof,

which consequently no one ever goes on, except the man to repair a broken slate. With the flat roof it would be a genuine feature with a useful purpose, justifying its existence.

In regard to the methods of giving expression and interest to our strip of street front there may be said to be two distinct classes of treatment, the modelled surface and the flat treatment, the latter depending for effect upon material, colour (more or less), and spacing of the openings; the former on modelled architectural features. It may be a question whether for cities, especially smoky cities, we do not run into modelled surfaces too much. Apart from this consideration, the width of street has something to do with the matter. In a narrow street, at all events, projections are to be avoided, and especially widely projecting cornices, though in a wide street a boldly projecting cornice is a source of very fine effect, and the London Building Act is quite inadequate in its allowances for this. The question of wide *versus* narrow streets has another bearing on the matter. In a narrow street the upper portion of the front of a building can hardly ever be well seen; what is most prominently under our notice is the ground story, and in such a case it is here that the decorative treatment should be; not up above, where it can never be seen. We sometimes see street buildings in narrow streets which have evidently been designed to look well on the drawing-board, where an increasing richness towards the upper portion of the design seems natural, and has the best effect; but in its place in the street it is all lost. Often a street front is far too much covered with ornament (especially in these days of terra-cotta), which loses some of its effect from its very profusion. A greater reticence in the main portion of the building would allow of the expenditure for a higher class of decorative work concentrated on the portion of the front where it can be really seen.

In what I have called the "modelled" type of front the effect is got by the treatment and moulding of the wall spaces and piers, and the windows are merely openings framed within these; in the flat type of front the windows, in their shape, size, and spacing, are themselves the prominent features, and the chief means of imparting architectural expression. But in either case the great source of architectural expression is arrangement and concentration of features in accordance with the actual requirements of the building. A house, a shop, a group of offices, have in general each their own requirement in regard to the proportions and positions of the windows.

The great difficulty with shops is, of course, the demand which is made by the shopkeeper for the greatest possible amount of glass in the ground-floor front, which has led to all our shops, for a long time past, being built so as to appear to stand on great sheets of plate glass. There are, however, signs of a certain degree of re-action against this; tradesmen have apparently begun to see that a really good architectural front may, by its superior appearance, compensate for the loss of a small portion of light, the necessity for which is perhaps, after all, more imaginary than real. Accordingly we have seen some successful designs for shops carried out lately in which the shop window has been formed by an opening arched with a genuine structural arch which carries the wall above it, the door being either included under this arch, or (which is better) forming a separate narrow arch abutting on it. The only real difficulty in treating a shop front in this manner arises from the necessity of getting a pier sufficiently wide on each side to form an adequate abutment to the arch; and, in fact, we may take it that shops constructed in this manner sometimes practically depend for their abutment on the adjoining dwellings, which is not quite satisfactory. A visible iron girder,

treated perhaps in a decorative manner, would be as genuine, though not quite so pleasing a form of construction, and would get over the difficulty as to abutment. This would, at all events, be a much more satisfactory treatment, in an architectural sense, than the sham wooden cornice which has long been the usual crown of a shop window, and the sooner we get entirely rid of that absurd piece of cradling the better. In Bechstein's shop, by Mr. Collcutt (Fig. 133), a kind of compromise has been made by building the large window with bracket arches sustaining what is called a flat arch; this robs less light than a complete arch, and preserves the appearance of a masonry construction, but it looks very much as if there must be a concealed girder behind it. In other respects this is a very favourable example of modern shop-front architecture. The use of the large arch for ground-floor offices, first suggested probably by Mr. Norman Shaw in his buildings at the bottom of St. James's Street, is illustrated in another effective piece of street architecture by Mr. Collcutt, the City Bank in Ludgate Hill (Fig. 134), an exceedingly picturesque front, though it may be objected that the lower portion has hardly the expression

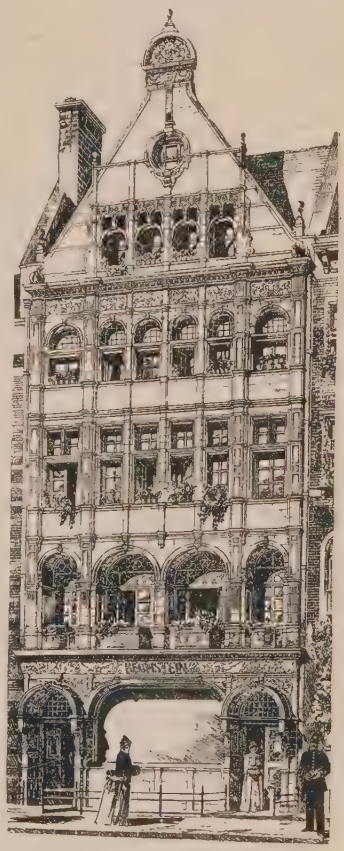


FIG. 133.—STREET FRONT (MR. COLLCUTT).

of fortress-like strength which should belong to a bank. Very few bank buildings show all the expression of security which a bank building ought to have; in most cases the aim seems to be confined to rendering them dignified and costly

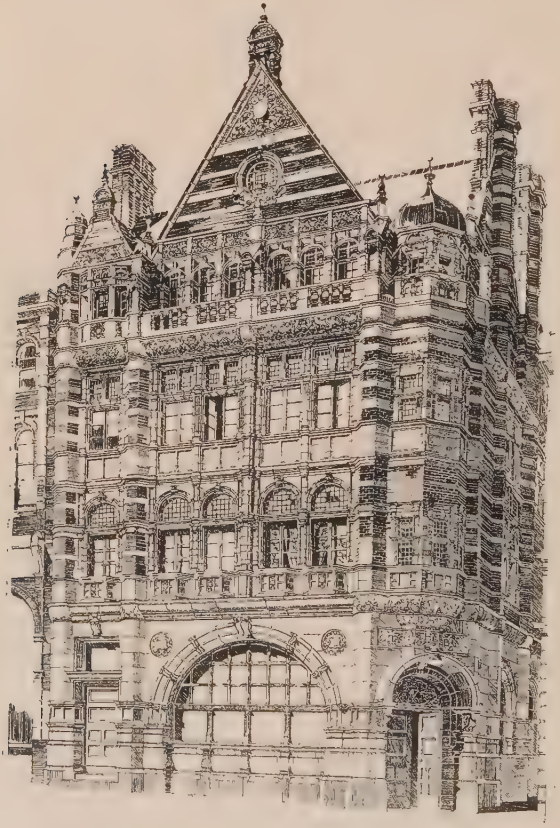


FIG. 134.—CITY BANK, LUDGATE HILL (MR. COLLCUTT).

looking, and a fine suggestion for powerful architectural effect is thus thrown away. The point may be illustrated by comparing this design with that of the United States Trust

Company in New York (Fig. 135), which shows a severity and massiveness of design completely suited to the purposes of such a building.

It is sometimes said that we have lost a great deal in losing the characteristic signs and symbols formerly associated with

FIG. 135.—UNITED STATES TRUST CO.'S OFFICES (MR. GIBSON).

shops belonging to various trades; but it may be doubted whether any attempt to revive them would not appear a little too much like a conscious æsthetic "pose." It belonged to and originated in a period when a large proportion of the population

could not read. We are accustomed now to state a thing plainly in writing, and I do not think people are likely to give up that method for the symbolical one. What would perhaps be more to the purpose would be to persuade tradespeople to pay more attention to the tasteful and decorative writing up of their names and trades, and give up the hideous practice of having monster letters stuck up all over their buildings, to the destruction of the scale of the street and of any architectural character which the building may possess.

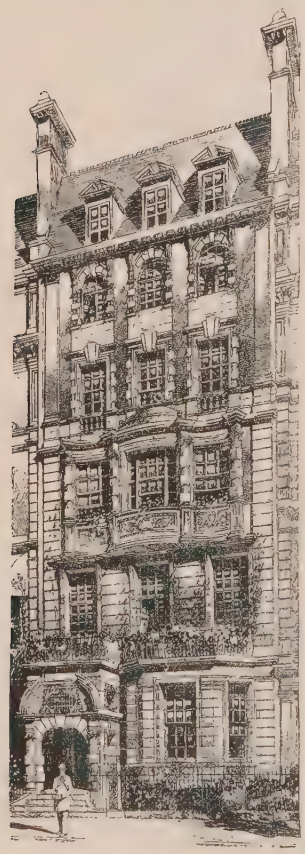


FIG. 136.—HOUSE FRONT (MR. R. A. BRIGGS).

A street house is, as far as architectural expression is concerned, a country house compressed into a single vertical slice of building, and is subject to the same considerations in regard to the distinction of entertaining rooms from rooms of less consequence, and the predominance of what may be called a domestic feeling in the design. Fig. 136, by Mr. R. A. Briggs, and Fig. 137, by Mr. Reginald Blomfield, are both good examples of street houses, which can be taken for nothing but dwelling houses. In the former, the manner in which the flatness of the front is relieved by the slightly curved lines of the windows in the second floor, without projecting them sufficiently to form an obtrusive feature, is a good point. Fig. 138, by Messrs.

Wimperis and Arber, is an attempt to give a rather more stately aspect to a street house; it is successful in that sense, and may have been what the client wanted, but it appears to me to suggest a small club, or something of that kind, rather than a private dwelling house; the formality of the pilasters gives it that effect, and seems rather at variance with the character of a domestic building, though this may perhaps be only a matter of association or of personal feeling. Generally speaking, however, an ordinary-sized street house should aim at a quiet picturesqueness rather than at a formal and conventional architectural character.

FIG. 137.—HOUSE, BUCKINGHAM GATE (MR. R. T. BLOMFIELD).

The question of style does not, of course, affect street architecture especially, more than any other kind of architecture, whatever ideas we entertain about what are called "architectural features;" and the use of details from styles of past ages is applicable as much or as little to street architecture as to any other class of buildings. There is, however, one question as to the method of grouping the windows, which is of some importance in regard to the expression of a street building, and that is, the question whether the main piers should be treated as vertical features to be emphasized, either as pilasters or as arch piers, and the windows

grouped between them; or whether the wall should be treated as a flat wall all in the same plane, pierced with windows where required. The former is the strongest construction (unless the average thickness of the wall is very considerable), but its æsthetic fitness is a very different matter. The separate treatment of the piers as blocks running vertically through the design, as in Fig. 139, a block of offices by an eminent American architect (Mr. G. B. Post), emphasizes the vertical lines of the front, and whether this is desirable or not depends on the proportions of the front, the character which it is desired to give to it, and the nature of the lines of the adjoining buildings. Where the latter are mainly horizontal in their tendency, an emphasis of the vertical line in the new structure may be a powerful means of gaining effect. But the question depends also on the purpose for which the building is intended. The separate treatment and emphasis of the vertical piers, with the windows only in the curtain wall between them, tends on the whole to give a "business" look, a warehouse look, to the front; it is at variance with the impression of domestic character; at all events there can hardly be any doubt that such a treatment is unsuitable to a street

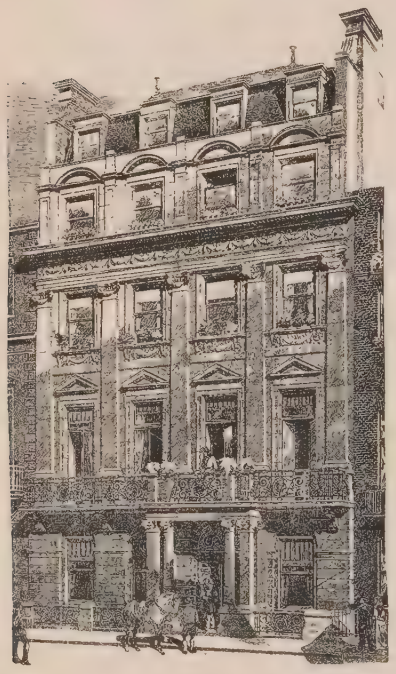


FIG. 138.—HOUSE FRONT (MESSRS. WIMPERIS AND ARBER).

dwelling house. On the other hand, in the case of a building, not of the warehouse class, which is necessarily tall and narrow in proportion, this vertical accentuation of the piers may be employed with good effect to give a unity of design to the whole, as in the front of the Glasgow Athenæum by Mr. Burnet (Fig. 140). But in shops or business buildings in which it is desired to have a great deal of light on each floor, without losing constructive solidity in appearance or in fact, the principle of carrying up a strong built pier between each range of windows, so as to form the visible support of the whole, is exactly the right one in an architectural sense. When Mr. Norman Shaw's city front, called "New Zealand Chambers" (Fig. 141), was first built, it was derided by some persons as a most absurd and eccentric building; and it must be admitted that in the design of the centre portion of the ground story, containing the entrance doorway, there is a gratuitous eccentricity which is quite open to criticism. But the general design of the front, so far from being eccentric, is really a frank expression of the practical construction; two solid brick piers

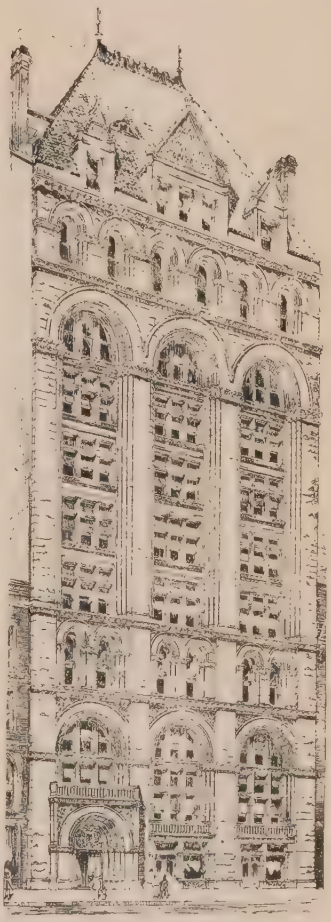


FIG. 139.—UNION TRUST CO.'S BUILDINGS (MR. G. B. POST).

are built up to support and buttress the front, and between them the window openings can be played with at pleasure. The principle has been adopted in a good many business buildings, only it is not often that it is adopted so thoroughly and expressed so openly and characteristically in the design.

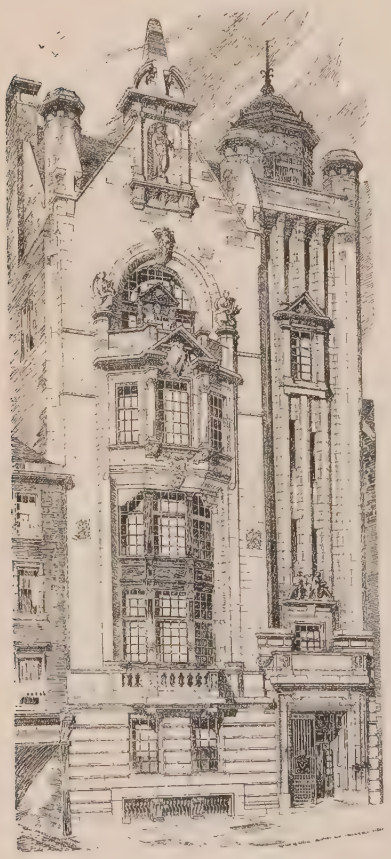


FIG. 140.—FRONT OF GLASGOW ATHENÆUM (MR. J. J. BURNET).

In some of the very lofty office buildings now erected in America, however, some of the best American architects have sought for their effect in the simple piercing of a lofty tower with successive ranges of windows, as in Fig. 142, the building designed by Mr. Bruce Price for the American Surety Company. This simple treatment, in buildings of such great scale and height, would have a very powerful effect if it were all genuine masonic architecture. The knowledge, however, that the apparent masonry exterior is only a veneering concealing an interior construction of steel, robs such a structure, to my mind, of all its impressiveness; it is a vicious method of building, contrary to all true architectural principle; and it is to be hoped that before long the Americans, architects and building-owners alike, may come to recognize

this, and give up a method of building which, besides being a gigantic architectural sham, is not without its element of danger.

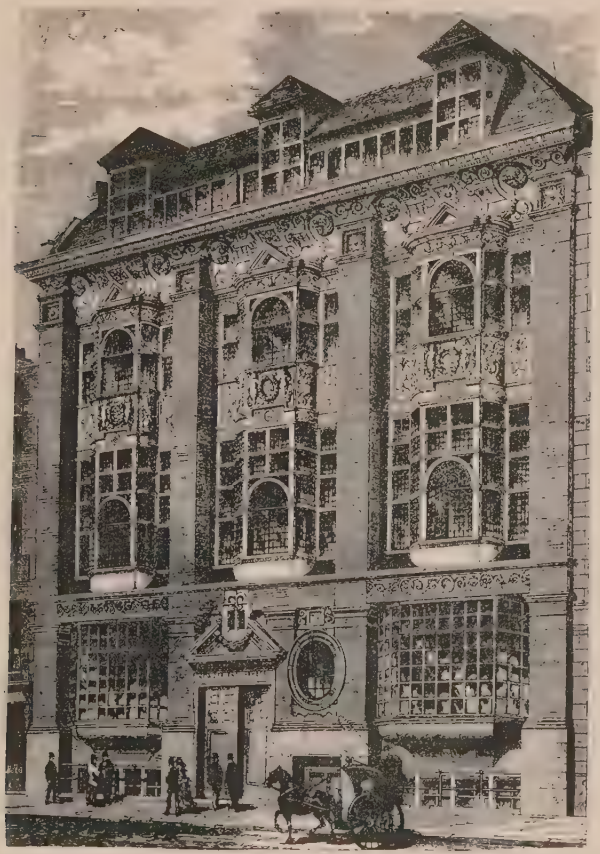


FIG. 141.—NEW ZEALAND CHAMBERS (MR. NORMAN SHAW, R.A.).

Where a street front is placed at the angle of two streets, so as to show a double front, there is generally a legitimate opportunity for emphasizing the angle by a special treatment,

generally by carrying up the building so as to form some kind of turret or cupola at that point. As this portion of the building is generally prominently seen from several points of view, it is quite in keeping with architectural fitness that it should be thus emphasized, but it may be questioned whether the frequent practice of making the entrance at the angle is altogether a good one. The angle should appear to be the strongest portion of the building; to make a large entrance door in it is constructively to weaken it. In one of the best recent street buildings in Manchester the architect, Mr. Heathcote, has set an example which is worth attention, by treating this portion of the design as a mass of solid masonry (Fig. 143). The satisfactory effect of this may be the better appreciated by comparing it with the weakly treated angle of a well-known London city building (Fig. 144), where the angle on the ground story is a large plate glass window, looking still weaker from the fact that the plan is on a curve, and that a heavy solid sculptured panel hangs immediately above this empty space. The two together form

FIG. 142.—AMERICAN SURETY CO.'S BUILDING (MR. BRUCE PRICE).

an object lesson, as to the treatment of angles, which is worth the attention of architectural students.

The question of material for street architecture is partly an

FIG. 143.—A STRONG ANGLE.

FIG. 144.—A WEAK ANGLE.

artistic, partly a practical one. We live under Building Acts now, and the richly carved and picturesque timber fronts which we admire in the old quarters of some cities are tabooed for us

by the law. I do not think we ought to complain of this; timber is too dangerous a material in cities, when used in large masses. It is quite true that an oak story-post within a brick building will hold up a floor longer, in the midst of fire, than a cast-iron column; but make the whole front of oak and it will be another matter; it is then a mass of fuel. Brick is the favourite material for street architecture at present. It has much to recommend it—warmth of colour, richness of texture, and it resists the disintegrating effects of a town atmosphere well; but it is a great soot and dirt collector, and the new brick streets will have a very different aspect in fifty years' time. People have been preaching the use of glazed and washable materials in cities, but the remedy would perhaps be worse than the disease in some respects, even if the cost be not prohibitive. Imagine the look of a street all polish and glaze from end to end! Terra-cotta has been used with great effect in a good many recent street buildings, and it is the one material, perhaps, which enables us to emulate to some extent the richly decorated timber fronts of old work, though it is rather a temptation to over-ornamentation and want of reticence; people who take to it seem to be run away with by it and unable to hold it in. I confess that I still have a weak and perhaps over-conservative leaning towards stone, as after all the most dignified of all materials for the best class of buildings, only for towns it must be carefully selected and not carved too much. The usefulness of cement, properly treated, seems to be overlooked. The all-over cement house, pretending to be stone, and often hiding bad brickwork, was an abomination. But the partial employment of cement on a brick building, as a means of getting contrast of tone and surface, may be of very good effect, and I wonder it has not been more often tried.

The employment of coloured materials with glazed surfaces

has been advocated as a means of giving a new beauty of colour to our streets. But who is to harmonize the colourists? Difference of colour in natural materials, or those of a dead surface, even if inharmonious at first, soon tones down by weather. But in a whole street built of highly coloured glazed materials, ever washable and ever new, what chromatic discords we should have! There would have to be colour by-laws drawn up, and a colour test of vision applied to the district surveyors who were to enforce them. The application of coloured material in small panels or points is more feasible; for instance, there has been an occasional experiment made lately in designing the names of shops and other trade places in decorative mosaic work. That is a good precedent, and might well be more followed.

FIG. 145.—HOUSE FRONT WITH DECORATIVE SCULPTURE (MR. BERESFORD PITE).

Decorative design of a high class, in the way of symbolical figure subjects, accompanied by decorative accessories, is perhaps to be regarded as an addition to street architecture, rather than a part of it. There

have been a few attempts of this kind, but they have not been followed up, partly no doubt on account of the cost of obtaining good artistic work of this class. If this kind of thing were really well done it would add very much to the interest of the streets, for the few of us, not for the many ; it is a thing one does for one's own pleasure and that of a few sympathizers. It is pretended that in doing this we should be supplying artistic enjoyment for the people in our streets, but that is a delusion ; the middle and lower class English public care nothing about it, and the better the art employed the less they would care for it. Of the materials for flat decorative work there is nothing like mosaic ; it is a kind of pictorial architecture, or a built picture, in itself. Tiles have, to my mind, too much glitter, and graffito is hardly suitable to a town atmosphere, and after all cannot well give us more than two flat tints ; even the effort to produce a third tint raises the face of the work too much from the ground.

But sculpture, whether in stone, marble, or bronze, is the form of ideal decoration which best of all blends with architecture and becomes almost a part of it ; and if there were less money expended in carving imitation gothic and classic capitals on our street fronts, there would be more to spend in modelling a figure or two which would give a much higher interest to the building. Fig. 145 represents the front of a house in London, of which Mr. Beresford Pite is the architect, in which two figures have been very successfully introduced as the principal ornament of the front, and which forms a good example of the kind of artistic interest which may thus be added to street architecture.

CHAPTER VI.

A NOTE AS TO INFLUENCE OF IRON.

A WORD or two should be said in regard to the influence which some modern forms of building material are supposed to exercise on architectural style and design.

Throughout the whole history of architecture the principal building material has been what may be broadly classified as stone, in one form or another. In Egyptian architecture the prominent material was granite, though sandstone was also used. In Greek architecture the building material was mostly marble. In Mediæval architecture it was what we generally recognize as "stone," a softer and more pliable material. The qualities of these several materials exercised a certain influence on the architectural style of the buildings; not so much on the broad characteristics of style as on the character of the detail. The hard and unyielding quality of granite, in which it is impossible to carve ornamental detail freely, or with any great relief, or any free play of surface, led naturally to the style of detail characteristic of Egyptian architecture, in which the broad contour of convex or concave surfaces was retained; and any ornamental detail consisted only of very shallow surface modelling in incised lines and groovings which did not interfere with the general outline of the surface. The marble employed by the Greeks, a less hard material, but still of great tenacity, allowed of the execution of elaborate carved ornament such as we see in the

typical forms of the Corinthian capital, but gave opportunity also for the execution of exceedingly delicate ornament, and for a great degree of refinement in the profiles and sections of mouldings, so that in Greek mouldings we find thin and delicate edges left, preserving their contour down to the present day, which, if executed in a softer and more granular material, would have long ago worn away by the mere action of the weather. In Mediæval architecture the use of this more granular material, in the shape of ordinary stone, led insensibly, and by a natural and intuitive process, to a very different style of detail ; carved ornament became broader and more massive in style, and mouldings assumed bolder and more rounded sections, thin edges and delicate contours being avoided as liable to perish.

The Romans employed marble in decorative and carved work, which was derived from Greek detail, and took forms very similar to those of Greek work, only less refined and more ornate and elaborate. But the Romans also employed a constructive system of building unknown to the Greeks, in making the core and mass of their buildings of concrete, which is, in fact, rubble walling on a small scale, consisting of an immense number of small pieces of solid material—broken stones or pebbles imbedded in a matrix of very strong cement, which bound the whole together into one homogeneous mass ; and leaving thus created a solid and enduring mass of wall, they faced it with more precious building materials, such as marble, in which the visible architectural design was expressed, and which thus formed only a veneer on a core of concrete.

The Renaissance architects of Italy, having at their command a great variety of beautiful marbles, but not in such abundance as to justify them in using these for the structural substance of the walls, as the Greeks did (for it must be remembered that at Athens marble was to be had in such plenty as to constitute it

the ordinary building stone, and not merely a precious material for facing), adopted a somewhat similar principle to that of the Romans, veneering their buildings with marble on a base of brickwork, or of cheaper and more common building stone.

Looking at all these varieties of building in the styles of the past, each of them influenced by the nature of the material available, it is not unnatural that modern architectural critics should raise the question, What are our natural building materials, and how should they influence our modern style of architecture?

Stone we have in abundance, and brick we can and do make in abundance; and so far as these two materials are concerned, there is nothing in their nature to suggest, in itself, any peculiarly modern type of architectural style. Marble is, with us, a material *de luxe*, and consequently only used, for the most part, in decorative adjuncts, such as polished panels of various colours, polished columns or shafts, etc.

The manufacture of concrete has been in recent times revived on a large scale, but it is mainly used for purely practical engineering or constructional work—for docks and harbours in engineering work, for foundations and fire-proof floors in architectural work. There have also been attempts to utilize it, on account of its supposed economy, for the main and visible walls of buildings; but these attempts have met with but little encouragement, owing chiefly to the bald and unsightly character of most of the buildings erected in this medium, and the impossibility of producing in it anything like refined or interesting architectural detail, while the economy in its employment has been found to be more imaginary than real.

It does not seem likely, therefore, that the revival of the use of concrete will have any influence on the style of modern architecture properly so called. It is immensely useful in

foundations where the ground in its natural state is unsatisfactory; in combination with iron it enables us to construct, at a moderate cost, floors of more indestructible and monumental character than our old timber-joisted floors; and it may, as suggested in the previous chapter, have some effect on the skyline of our architecture by leading to the employment of flat roofs in place of the sloping ones employed in timber construction. But its use will probably be limited, except in purely engineering structures, to these practical functions, which do not affect the visible architectural design of a building.

There is another material, however—iron—which in its extensive constructional employment is entirely a modern one; which is susceptible of a certain degree of what may be called architectural treatment, and which in engineering works has taken so large and important a place as to revolutionize the whole science of engineering and the whole method of designing and constructing engineering works. Before the days of steel, such a structure as the Forth Bridge would have been absolutely impossible. And it is now argued by some architectural critics that such great bridges as these are the real architectural works of the modern period; that they are to the nineteenth century what the cathedral was to the thirteenth century; and that our only hope of a genuine life in modern architecture consists in our recognizing and utilizing to the utmost this modern material, and evolving from its use a new style of architecture based on the qualities of the modern material.

The premiss in the argument states an unquestionable fact; but the deduction from it is open to a great deal of question. It is true that the steel bridges of the engineer are the great characteristic structures of the present era, as the cathedrals were of the Mediæval era. It is true also that the great

intellectual triumphs of the present era have been in scientific invention and not in artistic creation. But that does not prove that science is the same thing as art, or has the same kind of value; it only shows that the present is a scientific rather than an artistic epoch. And the fact that structures like the Forth Bridge are the most characteristic large structures of the age does not prove that the Forth Bridge is an architectural work; it only proves that this is essentially an engineering and not an architectural epoch. The fallacy of the argument consists in the ambiguous use of the word "architecture," which is taken to stand for any great structure; whereas the conception of architecture implies the æsthetic or artistic element. The cathedral was a structure built with an artistic object. The engineer's steel bridge is not necessarily or usually anything of the kind; its aim is in general merely utilitarian, and it is not till we get beyond the merely utilitarian aim that we enter the domain of architecture, in the true and fullest sense of the word.

I would therefore caution young architects against believing what they will sometimes find preached to them—that their chance of producing any really true and living architecture lies in their recognizing and using iron as the characteristic material of their day, just as marble was the material of the Greek, and stone that of the Mediæval architect. Iron stands on quite a different footing from any of the varieties of stone material, in that it is an artificially prepared material, not a natural one; and that it requires painting or other such surface treatment to enable it to withstand the weather; and (what is more important than all) that it is not monumental either in appearance or, so far as we have any reason to believe, in reality. I once asked the engineer of a great steel structure how long he expected it to last; and he cautiously replied that "with proper care" (which means with continual scraping and painting, and

examining and replacing of rivets) he did not see why it should not last five centuries. But five centuries is but a short life for a really monumental structure of the stone order, using the word "stone," as before, to include all the class of materials which can be used to build with in their natural state and without any preparation beyond cutting blocks into the required shapes. Had the Parthenon not suffered violence and been early despoiled of its roof, it would be a "practicable" building (as they say on the stage) at this moment, after more than two thousand three hundred years of existence.

In addition to this question of monumental structural character, there is that of appearance. It is impossible that any structure designed for the visible employment of iron or steel as its principal materials can ever possess the grandeur and breadth of effect of a stone building of the same proportions and dimensions. With whatever new materials we have to deal, architecture must still remain the art of producing what is beautiful and expressive in building, which involves a great deal more than the mere question of economic structure. That this is tacitly recognized is obvious from the fact that while (as observed in the preceding chapter) steel building has recently been largely introduced in America for a class of structures, viz. large blocks of offices, in which an economic return for the outlay is the principal object, the Americans themselves, who are rather proud of their lofty steel-framed structures for city buildings of the class just referred to, have not shown the slightest disposition to use the same methods and materials for private dwelling-houses, churches, town halls, public libraries, or any of the buildings in which dignity and beauty of architectural effect are considered of importance; and we should find it the same in our own country. Let any architect of "advanced views" on this question of the employment of iron

propose to a client to erect his private mansion, in his own park, of the most modern and approved concrete and iron construction, and there can be no doubt what answer he would get.

The idea that iron is to revolutionize modern architecture I hold therefore to be a complete fallacy, based on bad reasoning and on a confusion between engineering and architecture. Architecture still remains the art of producing beautiful and expressive structures, not economic or merely utilitarian ones; and whenever it relinquishes that aim, it will cease to be architecture in the full and true sense of the word, and there will be an end of it as an art.

INDEX.

A

Acoustic qualities in churches : 53, 54
Admiralty, the new : 139, 141
Alumni Hall, Dartmouth, U.S.A. : 157, 158
American apartment houses : 234
—— cottage houses : 229, 230
—— high buildings : 262, 274
—— house architecture : 219-224
—— taste in house-planning : 222, 223
Architect as an artist : 26
—— and decorative artist : 33
—— and surveyor : 39
—— and workman : 34, 35
Architects referred to or whose works are illustrated :—Robert Adam—219 ; Anthemius—16 ; author (the)—122, 124, 196, 197 ; Ballu—76 ; Baltard—76 ; Barry—39, 101, 102, 138 ; Batterbury and Huxley—249 ; Bedingfield—250 ; 251 ; Beeston and Burmester—199 ; J. Belcher—205, 206 ; Bernier—163 ; R. T. Blomfield—258, 259 ; Bodley and Garner—63 ; Boileau and Roguet —203 ; R. A. Briggs — 258 ; Jas. Brooks — 63, 74, 86-89 ; S. Brown — 220 ; J. M. Brydon — 120, 121, 130, 235, 236 ; Burges—34 ; W. D. Caröe—81 ; Basil Champneys — 85, 154 ; T. E. Collcutt—142, 144, 225, 229, 256 ; Döllinger—93, 94 ; Douglas and Fordham—81 ; Du Fais — 150 ; Elmes—66 ; W. Emerson—65 ; Ende and Boeckmann—104 ; E. Flagg—105, 106 ; Fränkl—149 ; Gibson—257 ; Gibson and Russell—153 ; Ginain—156, 157, 160, 162 ; E. Goldie—57, 216, 217 ; Grotjan—117, 119 ; G. A. Hall —213, 214 ; H. T. Hare—124, 128 ; Jas. Hay—66, 67 ; Heathcote—264 ; G. Horsley—228 ; R. M. Hunt—54, 204, 205, 231, 232 ; T. G. Jackson, R.A.—145, 154, 209 ; F. G. Knight—245, 246 ; Laloux—72 ; Lamb and Rich—157 ; Leeming—121-123 ; W. R. Lethaby—15, 20, 27 ; A. Little —230 ; R. S. Lorimer—210, 211 ; E. J. May—192, 193, 210 ; W. Millard —198, 199 ; E. W. Mountford—119, 120, 130, 132, 153 ; Nenot—156 ; Ernest Newton—206, 207 ; Otzen—94, 95 ; J. L. Pearson, R.A.—62, 63 ; G. T. Pearson—224 ; Beresford Pite—267, 268 ; Poelaert—136, 137 ; Pollett —233 ; G. B. Post—260, 261 ; Bruce Price—230, 231, 262, 264 ; Fellowes Prynne—91, 92 ; Pugin—8, 46 ; Putnam—234 ; Hargreaves Raffles—250 ; Raschdorff—67, 68 ; Ricardo — 131, 133 ; Richardson—73, 158, 219 ; E. R. Robson—151 ; Rouyer—128, 129 ; Scellier de Gisors—148 ; Schmidt—111 ; J. D. Sedding—77, 88, 92 ; J. P. Seddon—133 ; Norman Shaw, R.A. —200, 212, 255, 261, 263 ; Shepley, Rutan, and Coolidge—161, 162, 218 ; Steindl—102, 103 ; H. M. Stephenson —223 ; L. Stokes—81, 88, 90 ; Street —49, 51 ; A. Swasey—234, 235 ; J. W. Twist—188 ; Vanbrugh—187, 188 ; Vaudoyer—73 ; Vaudremer—73 ; Von der Hude and Hennicke—166, 167 ; Von Schroeter—165, 166 ; Wallot—107 ; A. Waterhouse, R. A.—134, 158 ; Aston Webb—87 ; Aston Webb and Ingress Bell—134, 145, 154, 155 ; Wimperis and Arber—259, 260 ; Wren —39, 50, 60
Architects and specialists : 10
Architectural association, the : 38
—— design, process of : 13-15

Architectural drawing: 36, 37
—— features: 2, 16
Architecture and literature: 19
——, modern conditions of: 1, 28
—— and music: 19
——, a profession or an art: 37, 39
—— at the Royal Academy: 30
Ashorne Hall: 216, 217, 218
Aspect of dwelling-houses: 177, 178, 184
Auteuil, church at: 73

B

Bacon, his "Essay on building": 189, 190
Bank buildings: 256
Barry's scheme for Government Offices: 138, 141
Basilica at Tours: 72
Bath municipal buildings: 120
Battersea Town Hall: 130
Bells in churches: 82; in public buildings: 111
Berlin Cathedral: 67-71, 76
—— Houses of Parliament: 106–109
Birmingham Law Courts: 134
Blackfriars Bridge: 172
Blenheim: 187
Bloomsbury, flats in: 235
Board schools: 151
Bodley's library: 8
Bridges: 171–174
British Museum: 159, 160
Browning, on a Venetian house-front: 243
Brussels Law Courts: 136, 137
Budapest, Houses of Parliament at: 102–104; apartment house at, 235, 237
Building materials, ancient and modern: 269–271
Built rood screen: 91
"Bullers Wood": 206

C

Carvers and sculptors: 34
Cathedral: Westminster, 62; Truro, 62, 63; Berlin, 67–71, 76; Liverpool (proposed), 63–67; Marseilles, 73, 74
Chancel, the: 47, 48, 51
Château, modern French: 204
Chelsea Vestry Hall: 131
Christ's Hospital (proposed new): 154–156
Churches, classification of: 78
Church-like character in design: 59
Church of Holy Redeemer, Clerkenwell: 78
—— planning: 47, 50, 54, 55-57, 58
"Church style": 40; has there ever been one? 55; should there be one? 56
Churches without towers: 87
City Bank, Ludgate Hill: 255
Classic column as an influence: 17
Cloakrooms in public buildings: 115, 116
Clubs: 237–240
Club-house architecture in London: 239, 240
Coloured materials in street architecture: 265, 266
Concrete as an architectural material: 271
Connecticut, house in: 220
Corner buildings in streets: 263, 264
Cottage architecture: 227–230
"Cottage" defined: 227
Cottage by Mr. Horsley: 228; by Mr. Collcutt: 229
Covehithe, ruined church at, 55
"Cragside": 200, 201, 202

D

Daudet, on French Lycée: 151
Decorative accessories in street architecture: 267, 268
—— artist: 34
Decorating firms: 33
Domestic architecture, conditions of: 175
Doors opening wrong way: 216
Drains part of the design: 27
Drawings, necessity of: 28, 29
Dwelling-houses, classification of: 183, 184

E

Ecclesiastical tradition: 51, 54, 55
École des Beaux-Arts: 31
Edinburgh municipal buildings: design by Messrs. Leeming, 121, 122; by the author, 122, 123; another competition design, 123
Educational buildings: 151–162
"Endall's" Manor: 205, 206
Engineering and architecture, confusion between: 273, 275

F

Faculté de Medicine, Paris : 156, 157
Fergusson : 66, 146
Fire-engine stations : 150
Fireplace, position of : 215, 216
Forth Bridge : 272 ; not architecture : 273
French architects : 31
—— church architecture : 71–77
—— country houses : 224, 225

G

Galliera Museum, Paris : 160, 162
Garrison Church, Stuttgart : 93, 94, 95
Georgian houses : 213
German houses : 203
—— modern Gothic compared with English : 95
—— villas, old and new : 225, 226
Glasgow Athenæum : 261, 262
Gothic not a "church style" : 55, 61
—— revival and recent work compared : 93, 94
Government offices : 136–142
Graded schools : 151, 152
"Grave of modern Gothic," the : 134
Great churches, need of : 46
Grimthorpe, Lord : 12

H

"Haddon Hall" mansions : 234
Haslemere, house at : 213, 214
Holy Trinity Church, Sloane Street : 88, 92
Home and Foreign Offices : 138, 141
Hôtel de Ville : 109 ; of Paris : 116–118 ; of Vienna : 109 ; of Hamburg : 112, 118 ; designs for at Valence : 130
House, architectural expression of : 181, 182, 185, 186, 190
——, Avenue Bois de Boulogne : 232, 233
House, "picturesque" type of : 183
—— planned like a cathedral : 223, 224
—— planning, ancient, compared with modern : 176, 177
——, modern requirements : 177–181
——, a pretentious : 186
Houses in flats : 233–236
—— of Parliament—London : 101, 102 ; Budapest, 102–104 ; Tokio : 104 ; Berlin : 106–109
Hunt, R. Morris, on acoustics : 54 ; mansion by : 205 ; house at New York by : 231, 232
"Hurstbourne," Hants : 199
Hydraulic press : 11

I

Illogical planning : 143
Imperial Institute : 144, 145 ; plan of : 142
Incomplete architect, the : 39
"Inspired artisan" theory : 28
Institute of painters in water-colours : 161
Iron as an architectural material : 272–275

J

Jardine Hall : 192–195

K

Kew Bridge : 171
Kirklevington Grange : 210
Kitchen, proper aspect of : 178

L

Lavatories, etc., in public buildings : 115, 116 ; in dwelling houses : 179, 180
Law Courts : 99, 131–136 ; London : 133, 134 ; Leipsic : 135 ; Birmingham : 134
Lawson, G. A., sculpture by : 121
Lessing Theatre, Berlin : 168, 169
Lethaby, W. R., views on architecture : 15, 20, 27
Life of iron and stone structures compared : 273, 274
Liverpool Cathedral, design for, by Messrs. Bodley and Garner : 63 ; by Mr. Brooks, 63, 64 ; by Mr. Emerson : 65, 66 ; by Mr. Hay : 66, 67
"Local colour" in house architecture : 211, 212
London Bridge : 171
Lycées, French : 151, 152

M

Mairies, French : 128–130
"Maisons de Campagne," French : 186
Mansions : 183, 184, 187 ; Bacon's ideal of : 190 ; formal : 191, 192, 195 ; plan of, by author : 196, 197 ; "rambling" type of : 195, 198, 199 ; in towns : 231, 232
Marseilles Cathedral : 73, 74
Materials for street architecture : 265, 266
Mediæval church plan : 47 ; an anachronism for modern churches : 52
Medical College, London : 157
Metropolitan Club, New York : 238
Minnesota State House, design for : 105, 106
Mullioned windows, merits of : 208, 209
Municipal and State architecture compared : 96, 109
Museums : 158–161

N

Narragansett, seaside cottage at : 230
Natural History Museum, London : 158
New Zealand Chambers : 261
North Walsham, church at : 55
Northampton Institute : 153
Nouveaux riches and house architecture : 200
Nursery, proper aspect of : 178

O

Office of works : 99, 140, 147
"Old Colonial" style, United States : 221, 222 ; modern American example : 223
Opera Comique, Paris : 163
—— House, St. Petersburg : 165 ; Bayreuth : 168, 169
Oratory, the, Brompton : 61
Organ chamber : 52
Oxford Town Hall : 124–128 ; design for, by Mr. Ricardo : 131

P

Palaces : 98, 99
Parthenon : 56, 274
Pastellists' Pavilion, Paris : 32, 33
"Passage-aisle" plan of churches : 48–50, 91
Pater, Walter, on architecture : 30
Pediments over windows, etc., use of : 15
"Picturesque" type of house : 183
Piers, treatment of in street architecture : 259, 260
Plan of Renaissance house : 3
Planning, modern and ancient contrasted : 2–4
—— of public buildings : 4–6, 112–116 ; of domestic buildings : 5, 6, 176–180 ; of churches : 47–51, 56–59
Police stations : 148–150
Pont Mirabeau, Paris : 172
Post-office architecture : 146–148
Pretentious character in houses : 186
Prevision, necessity of on part of architect : 12
Public school planning : 154–156
Pugin on cheap churches : 46

Q

Queen's Hall, London : 33

R

Rapid building : 8
Record Tower, Mr. Seddon's design for : 133
Reform Club : 24
Renaissance houses : 3
Reredos, St. Paul's : 60
Ring-Kirche, Wiesbaden : 94, 95
Roman thermæ : 4
Roughcast and plaster on exteriors : 215
Royal Academy : 30

S

St. Andrews, Willesden : 86, 87
St. Augustin, Paris : 76
St. Clare, Sefton Park, Liverpool : 88, 90
St. Dyfrig's, Cardiff, Sedding's design for : 77
St. George's, Worcester : 87
St. Mary Woolnoth : 50
St. Paul, address on Mars Hill : 42, 45
St. Paul's : 60
St. Sophia, Constantinople : 16, 22, 43 44

St. Stephen's, Walbrook : 50
Salle des Cariatides, Paris : 117
—— du Mariage : 130
Saracenic style not monumental : 42
Sash windows : 209
Sculpture as an accessory to architecture : 268
Seaside houses : 185, 230, 231
Seaton Delaval : 187–189, 202
Shakspeare Theatre, Stratford-on-Avon : 165
Sheffield Town Hall : 119, 120
Shop fronts : 254, 255
—— signs : 257, 258
Site in relation to house : 185
Sorbonne, the new : 156
Spencer, Mr. Herbert, on origin of architect : 41
Spires and towers to churches : 80–83
Staircases : in public buildings, 114 ; in dwelling-houses, 196, 198, 218, 219
State architecture classified : 97
Steel *versus* granite for bridges : 173
Steps, effect of, at entrance to a mansion : 194
Stone as a building material : 266, 269–271, 274
Street architecture : defined, 241 : architectural treatment of : 243, 244 ; improvement of, in London : 247 ; shop fronts : 248, 249 ; interference with design of contiguous fronts : 250 ; question of gables : 251 ; flat roofs, their advantages : 252 ; modelled and flat treatment of fronts compared : 253, 254
—— house, architectural expression of : 258, 259
Street (G. E.), on chancels : 51
Style in architecture : 21, 23, 24 ; in church architecture, 46
Symbolism, George Herbert's and Keble's : 44
—— in architecture : 21, 30, 31 ; in church architecture, 53, 61
Symmetrical house planning, advantages and drawbacks : 190, 192, 195, 196

T

Technical school, Liverpool, 153 ; West Ham, 153
Temple styles : 42
Thatched House Club : 24
Theatre Royal, Liverpool : 165
Theatres : 163–171 ; artistic treatment of, 170
Timber roofs to churches : 91
Tower Bridge : 172, 173
——, position of, in churches : 83, 84, 86 ; function of, in public buildings, 111, 112 ; position of, in public buildings, 123
Town clerk, provision for, in planning : 112, 113
—— hall and legislative palace compared : 96
—— halls : 109–131 ; of Sheffield, 119, 120 ; of Bath, 120 ; of Oxford, 124–128 ; design for, by Mr. Ricardo, 131 ; of Battersea, 130
—— mansions : 231, 232
Tradition, critical use of : 20
Trinité, church of, Paris, 75, 76
Trollope, opinion as to mullioned windows : 208
Truro Cathedral : 8, 62, 63
Trust Co.'s offices, New York : 257
Tutor's house, Oxford : 209, 210

V

Valence, designs for Hôtel de Ville at : 130, 131
Vauxhall Bridge : 172
Victoria Tower : 112
Virginia Library, Chicago : 161, 162

W

War Offices : 139–141
Wagner Theatre : 168, 169
Wickham Hall : 198, 199
Windows—not to be at opposite sides of sitting-room : 217

PRINTED BY WILLIAM CLOWES AND SONS, LIMITED, LONDON AND BECCLES.

NA2500. S8

a39001 003192096b